MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XL. No. 14.

$4.00 per year. Single Copy 10 Cents.

WORK FOR THE SOUTH.

Two letters following explain themselves, and demonstrate the work being done for the South:

CHILLICOTHE, O., October 11, 1901.

The MANUFACTURERS' RECORD, *Baltimore, Md.:*

GENTLEMEN—Kindly advise when my subscription expires. I wish to renew the same. The information obtained from your columns led me to make extensive investments in the South. Very truly yours,

JOHN SEIP.

CHILLICOTHE, O., October 17, 1901.

The MANUFACTURERS' RECORD, *Baltimore, Md.:*

GENTLEMEN—Herein please find New York Exchange, $5.00; $4.00 to pay for renewal of MANUFACTURERS' RECORD, and $1.00 for Southern Farm Magazine.

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There are many conditions in the South to recommend it in an agricultural way, and the time is not far distant when Northern people of means will centre most of their energies in that direction. Yours very truly,

JOHN SEIP.

THE FULL TABLE OF CONTENTS WILL BE FOUND ON PAGE 236.

Baltimore, October 24, 1901.

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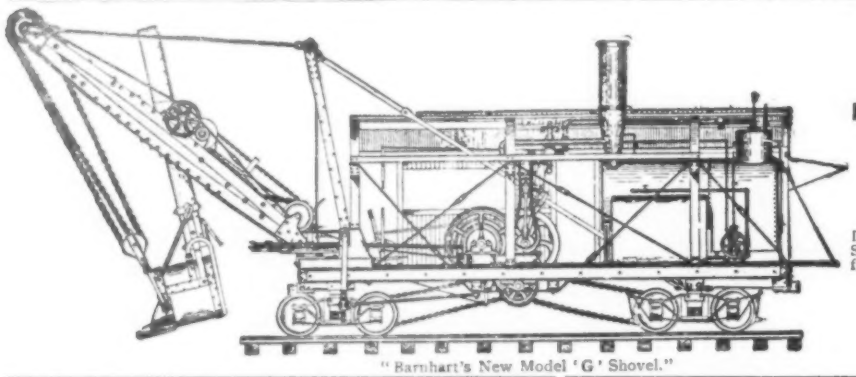

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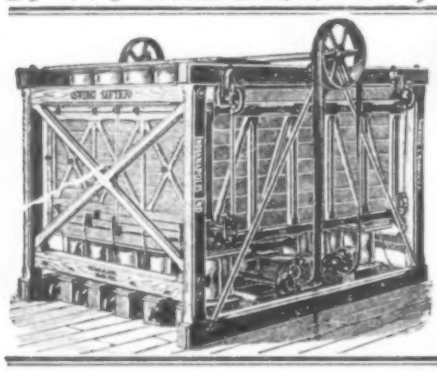

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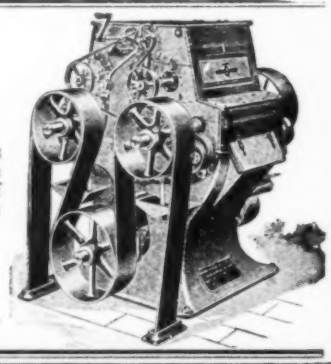

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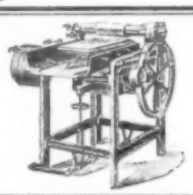

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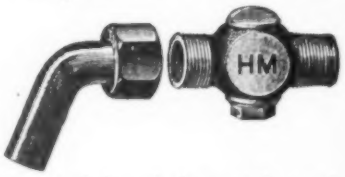

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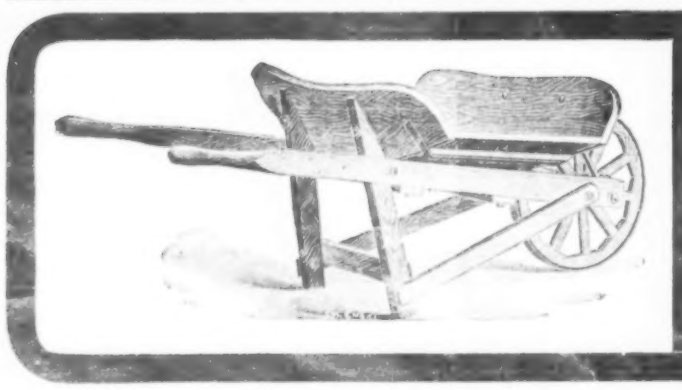

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Hench & Dromgold, York, Pa.

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American Steel Hoop Co., New York, N. Y.

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Magnolia Metal Co., New York., N. Y.
Ryan, J. J., & Co. Chicago, Ill.

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Southern Asbestos Mfg. Co., Richmond, Va.

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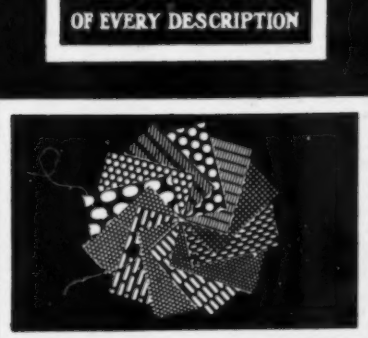

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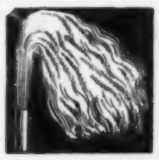

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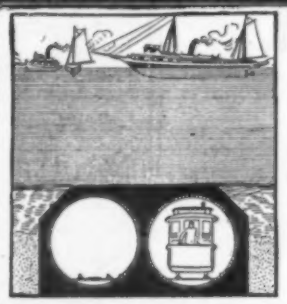

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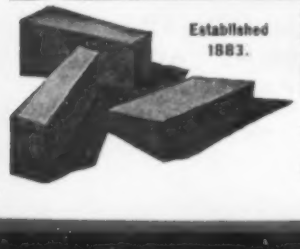

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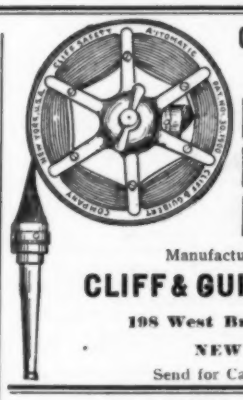

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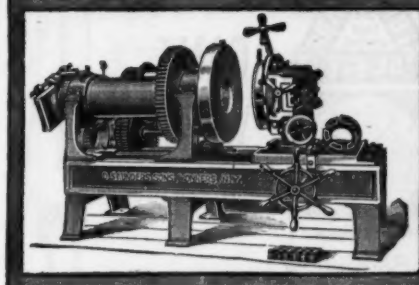

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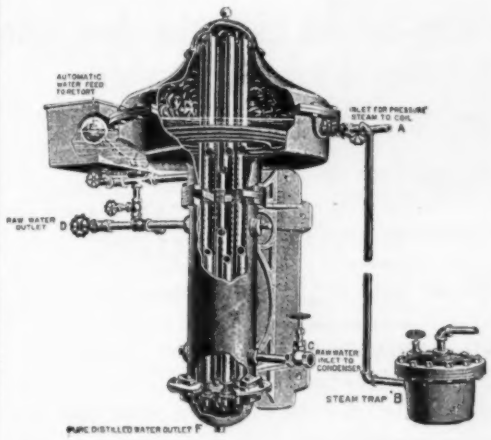

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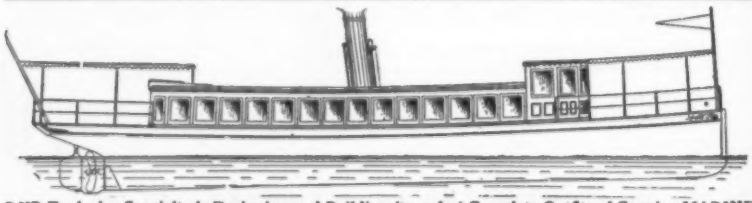

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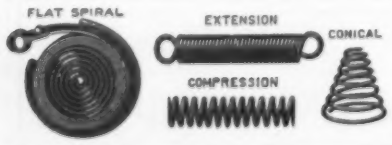

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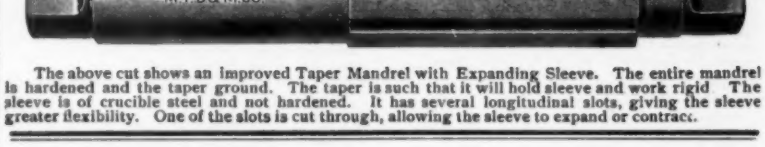

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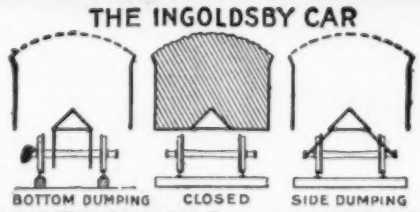

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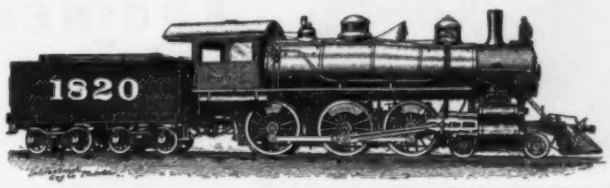

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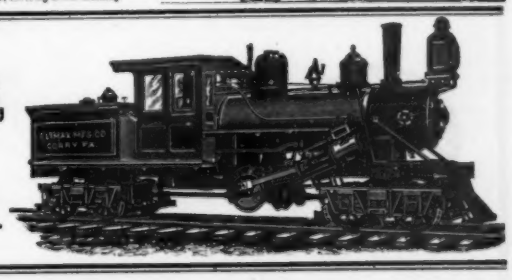

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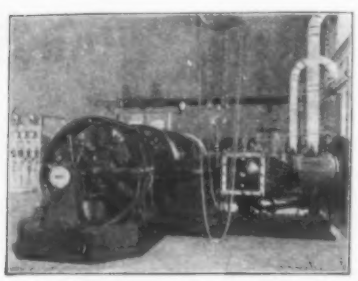

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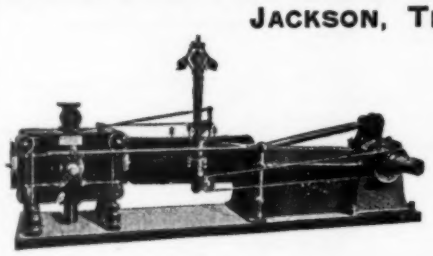

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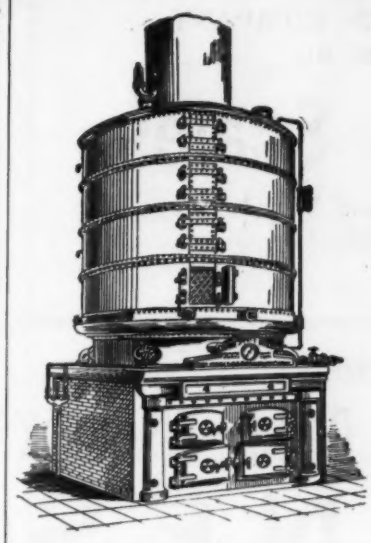

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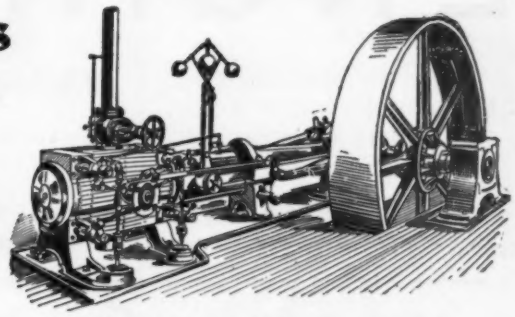

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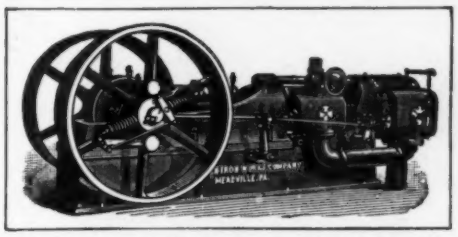

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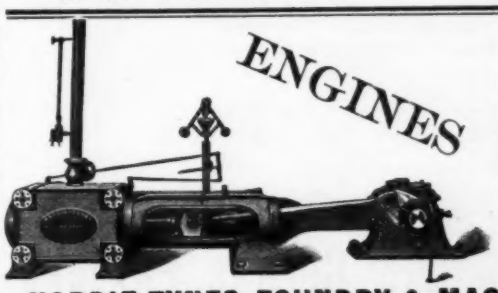

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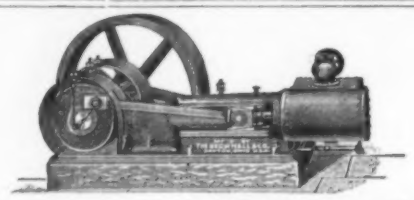

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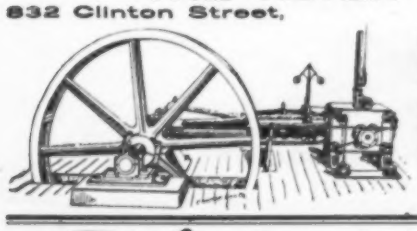

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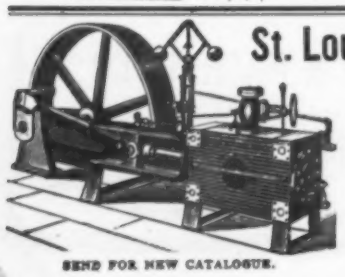

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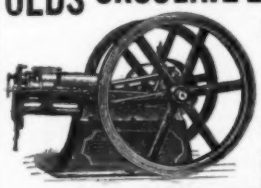

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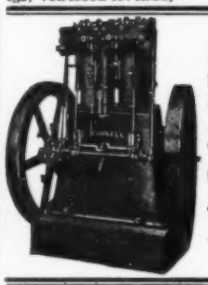

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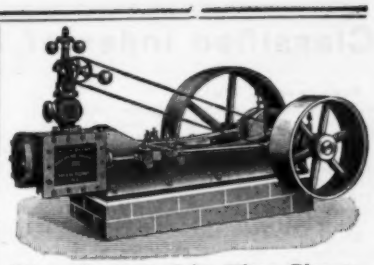

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FROM 50 TO 1000 HORSE-POWER.

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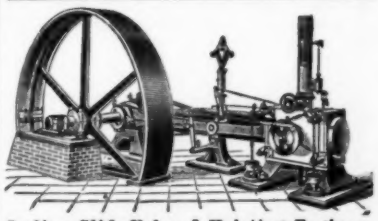

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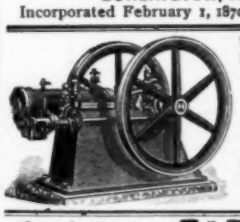

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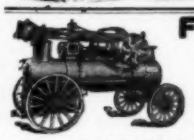

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Saw Mills,
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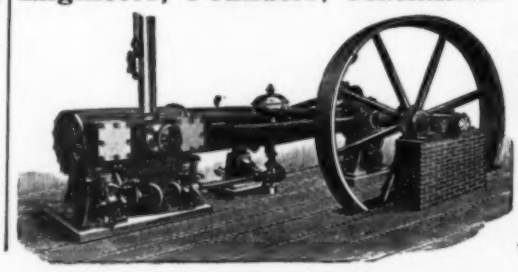

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Classified Index of Advertisers.

For Alphabetical Index See Page 31.

Weighing Machine. (Automatic.)
N. E. Automatic Weighing Machine Co., Boston, Mass.
Well Contractors. (Oil, Artesian, etc.)
Andrews, Perry, & Bro., Atlanta Ga.
Austin Mfg. Co., F. C., Harvey, Ill.
Bacon Air Lift Co., New York, N. Y.
Cook Well Co., St. Louis, Mo.
Gould, F. M., Richmond, Va.
Hughes Specialty Well Drilling Co., Charleston, S. C.
Sydnor Pump & Well Co., Inc., Richmo d, Va.
Well Drillers. [See Well Tools and Supplies.]
Well Tools and Supplies. (Artesian.)
Austin Mfg. Co., F. C., Harvey, Ill.
Bacon Air Lift Co., New York, N. Y
Cook Well Co., The, St. Louis, Mo.
Gould, F. M., Richmond, Va.
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Loomis & Nyman, Tiffin, O.
Perry Andrews & Co., Atlanta, Ga.
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Williams Bros., Ithaca, N. Y.
Wheelbarrows and Trucks.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Whistles. (Chimes, Sirens, etc.)
American Steam Gauge Co., Jamaica Plain, Mass.
Crosby Steam Gauge & Valve Co., Boston, Mass.
Lunkenheimer Co., Cincinnati, O.
White Lead.
French, Samuel H., & Co., Philadelphia, Pa.
Windlasses.
American Ship Windlass Co., Providence, R. I.
Windmills.
Flint & Walling Mfg. Co., Kendallville, Ind.
Window Guards. (Wire.) [See Wire Goods.]
Window Frames & Sashes. (Metallic.)
Badger, E. E., & Sons, Boston, Mass.
Smith-Warren Co., East Cambridge, Mass.
Wire Cloth. (Iron, Steel, Brass, etc.)
Burger Iron & Wire Works Co., Akron, O.
Caldwell, H. W., & Sons, Chicago, Ill.
Meyers, Fred. J., Mfg. Co., Hamilton, O.
New Jersey Wire Cloth Co., Trenton, N. J.
Wire Goods.
Balderston, H., & Son, Baltimore, Md.
Bolles Iron & Wire Works, J. E., Detroit, Mich.
Burger Iron & Wire Works Co., Akron, O.
Dow Wire Works Co., Louisville, Ky.
Dufur & Co., Baltimore, Md.
Ludlow-Saylor Wire Co., The, St. Louis, Mo.
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Trenton Iron Co., Trenton, N. J.
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Cordesman, Meyer & Co., Cincinnati, O.
DeLoach Mill Mfg. Co., Atlanta, Ga.
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Egan Co., The, Cincinnati, O.
Fay, J. A., & Co., Cincinnati, O.
Frank Machinery Co., The, Buffalo, N. Y.
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Greaves, Klusman & Co., Cincinnati, O.
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Lane Mfg. Co., Montpelier, Vt.
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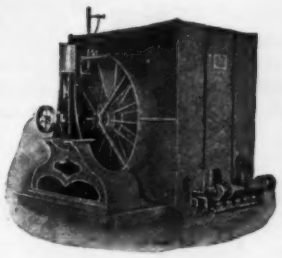
Merchant & Co., Inc., Philadelphia, Pa.
New Jersey Zinc Co., New York N. Y



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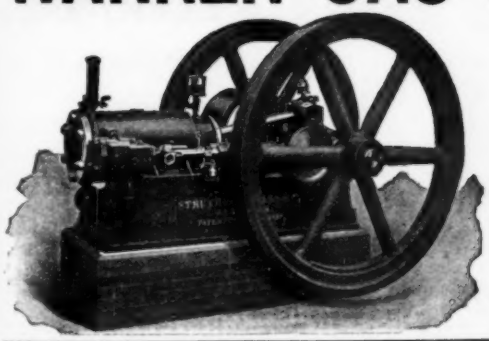

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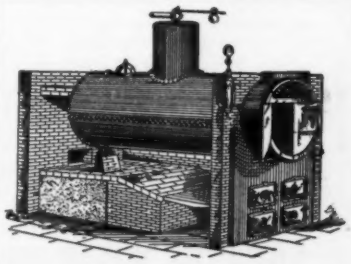

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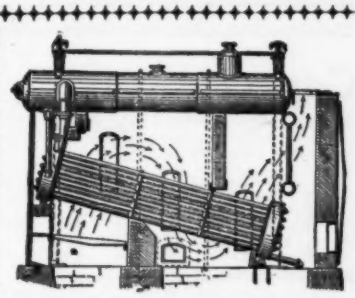
Representatives for Virginia and the Carolinas, SMITH-COURTNEY CO., Richmond, Va.



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HIGH GRADE BOILERS OF ALL KINDS.
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We furnish complete equipments for Burning Oil—the new fuel for the South and West. We manufacture

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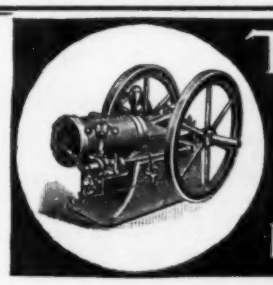

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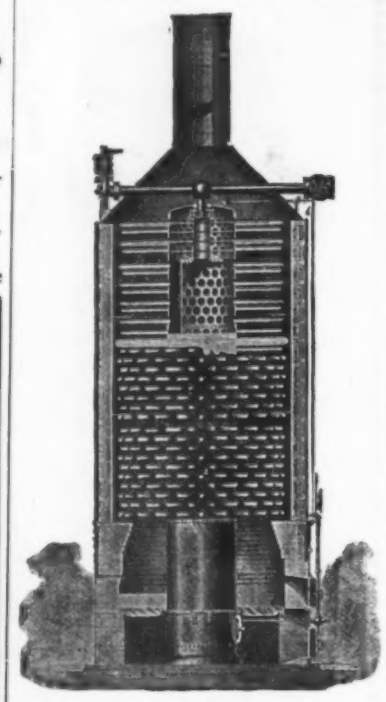

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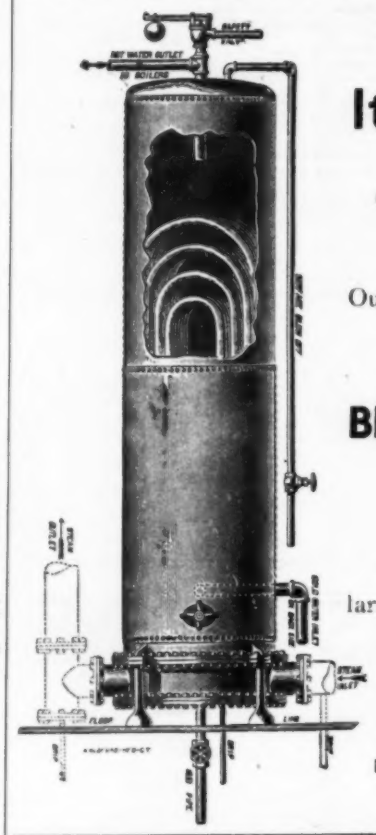

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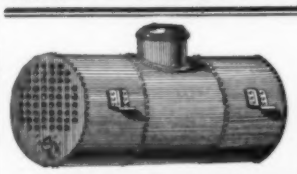

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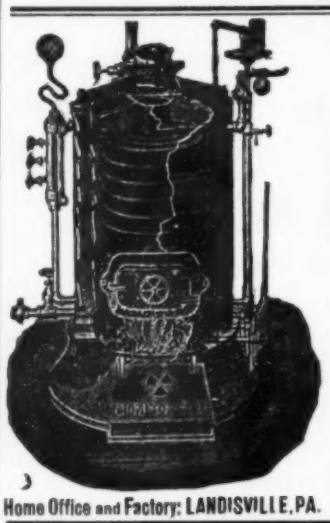

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Wrought-Iron Coil Boiler

For Heating By Steam or Water.

The Greatest Fuel Economist. Easily Operated. Needs No Cleaning. Perfectly Safe. Cannot Explode. Durable. Lasts a Lifetime.

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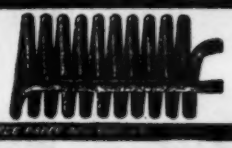

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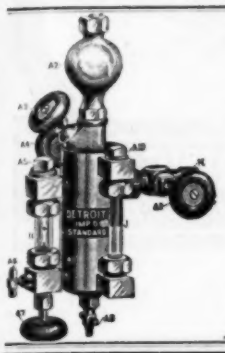


THE DETROIT SIGHT FEED LUBRICATORS

possess all the improvements and good features that have been suggested by our own and our customers' experience during the past 20 years.

They are being used by more than nine-tenths of the prominent American engine builders, who are good judges of lubricators. Many of these have used them continuously for more than 15 years.

There are more than 550,000 Detroit Sight Feed Lubricators in use, or more than all other styles combined.

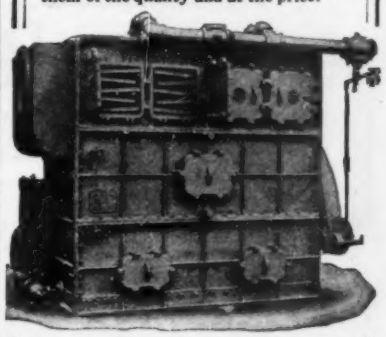
Use the Detroit Lubricators and you will be in good company. Our New Catalogue, showing our full line, will be sent on application.

GLASS BODY OIL PUMPS.

DETROIT LUBRICATOR CO., DETROIT, MICH.

SOMEBODY
Has put it thus:

"It's easy to sell goods when you have them of the quality and at the price."



We are sure of the quality of our "COCHRANES," and equally certain that you will want the "Cochranes" at the prices, because of the quality. The best gauge we have of our prices being RIGHT is that we probably sell more Feed-Water Heaters and Steam Separators than any other manufacturer of the same kind of appliances. For it is a "rock-bottom" fact that steam users will not keep on paying more than what a thing is actually worth, and also well known that one cannot sell quantity unless his prices are popular prices.

More good "buying points"—points of preference and advantage—about the

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Austin Steam Separators

do their work thoroughly. Their use means an absolute prevention of all engine troubles due to wet steam and impure exhaust. They save coal, power, money, profanity.

Sent on approval to responsible parties anywhere in the United States, to be returned at our expense if not satisfactory.

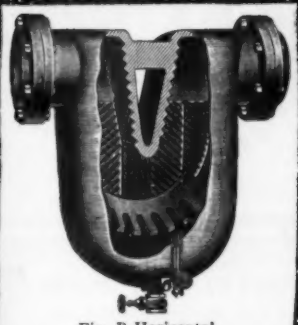

Fig. B Horizontal.

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STEAM BOILER Inspection and Insurance.

Boilers do explode and cause damage to property and sometimes destroy life or cause personal injury.

Inspections carefully made tend to prevent explosion, and insurance provides indemnity against loss by explosion.

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Tanks, Stacks, Stand Pipes and Sheet Iron Work; Shafting, Pulleys, Gearing, Boxes, Hangers, etc. Mill Castings.
Cast every day; work 180 hands.

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AUGUSTA, GEORGIA.

BOILERS

and COMPLETE POWER PLANTS, STACKS, EXHAUST STEAM HEATING, etc

E. KEELER CO., Williamsport, Pa.
Send for Catalog.

IMMEDIATELY

On receipt of order we can ship any size of our

LIGHT VERTICAL
AUTOMATIC ENGINES

Just the thing for filing rooms, creameries, cotton gins, or for running fans, blowers, dynamos or generators. We have a new catalog "E" which we will send on application, which tells all about them. Write, telephone, telegraph, we talk all three.

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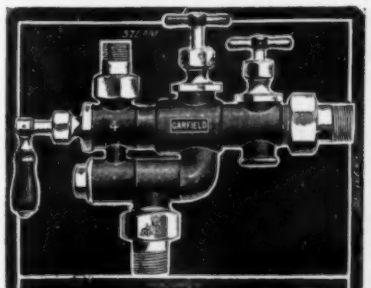

The Garfield Automatic INJECTOR

Cleans without taking apart. Easy to operate. Without question the right Injector for stationary engines.

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DYNAMO
(Thompson-Ryan Patents),
and
Automatic Engine
(McEwen Patents),

combine the best materials, technical skill and workmanship in their construction. No machine is shipped without having undergone at least one full day's test under full-rated load.

Our Illustrated Catalog gives important details of these machines.

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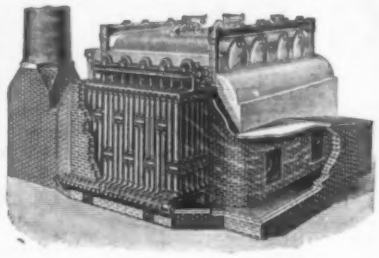

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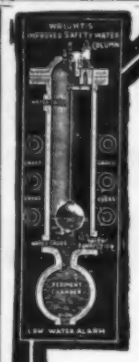

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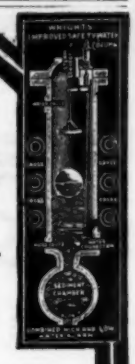

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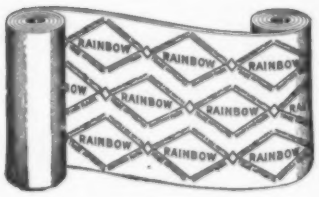

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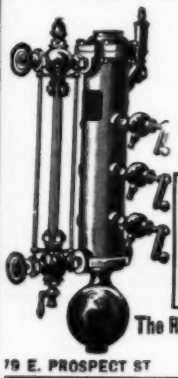

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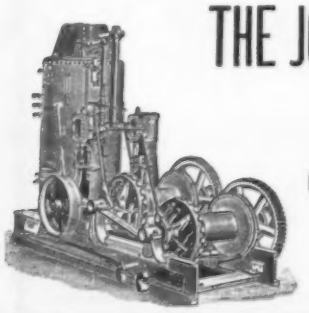

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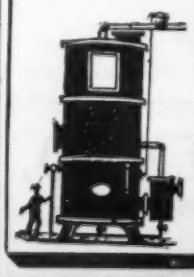

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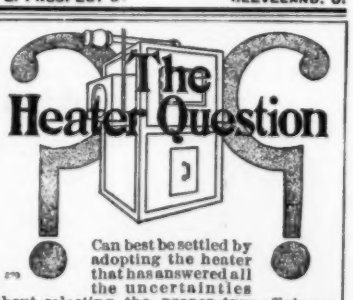

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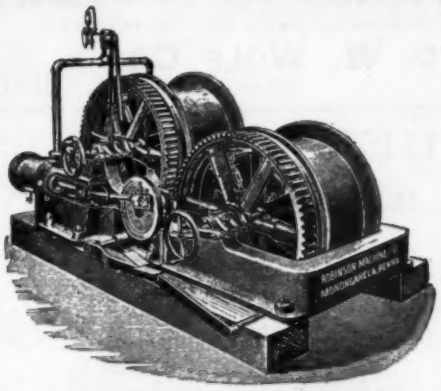

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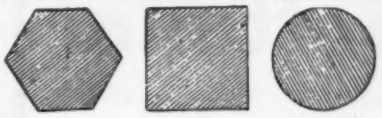

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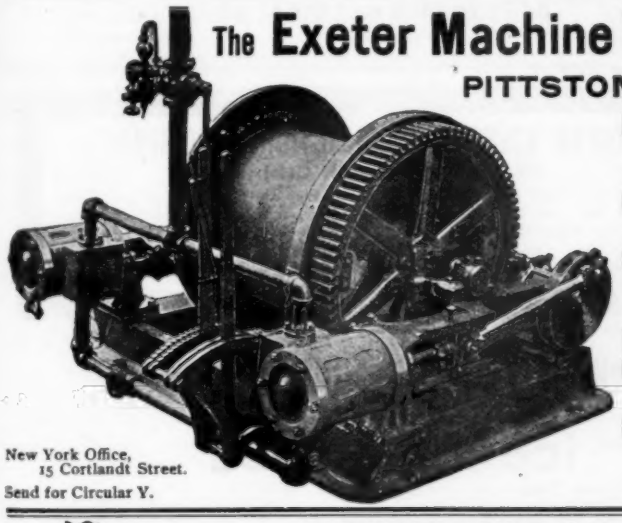

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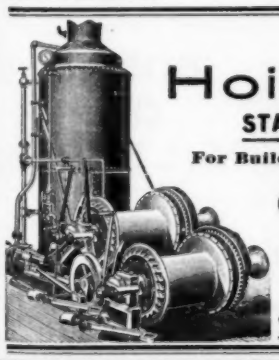

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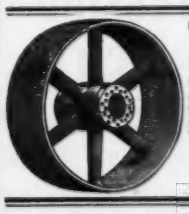

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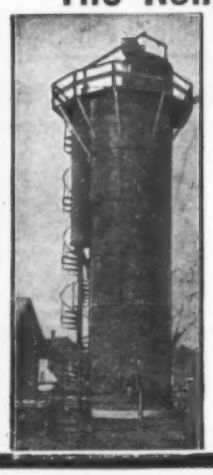

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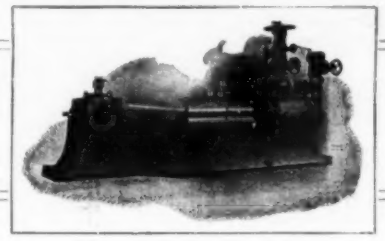

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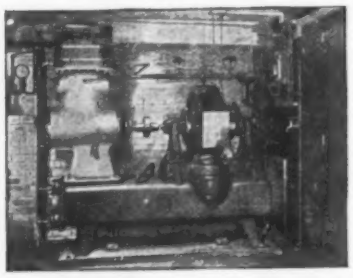

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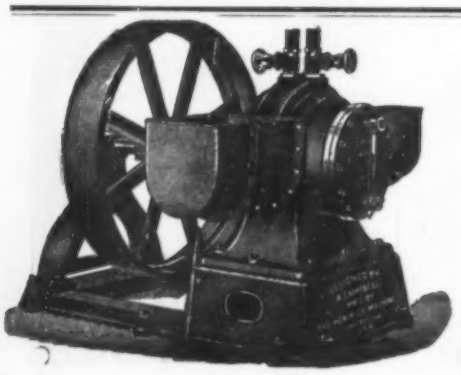

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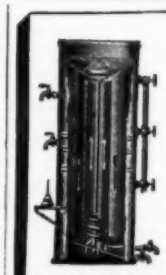

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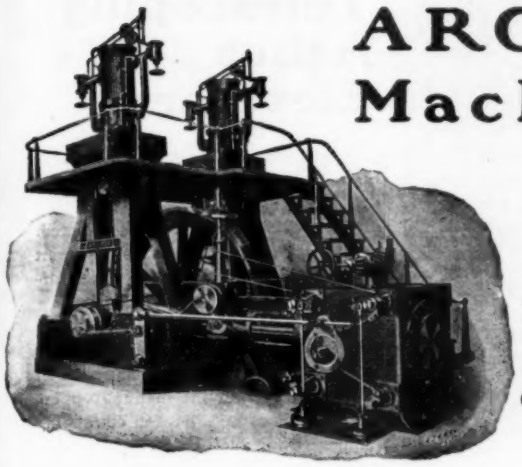

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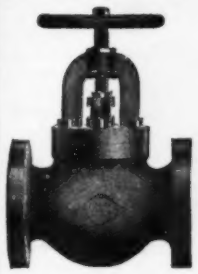

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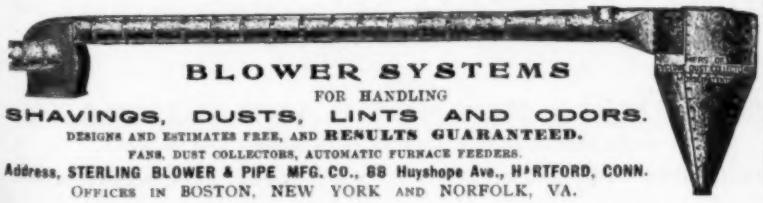

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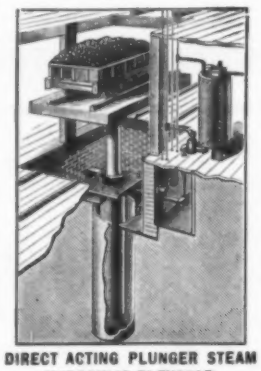

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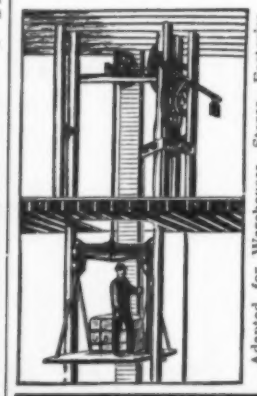

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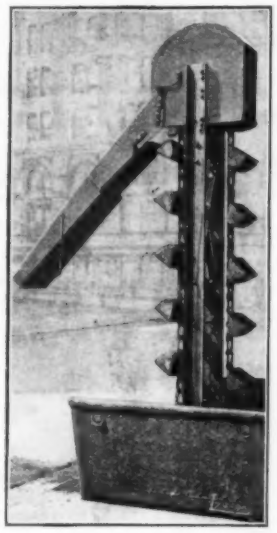

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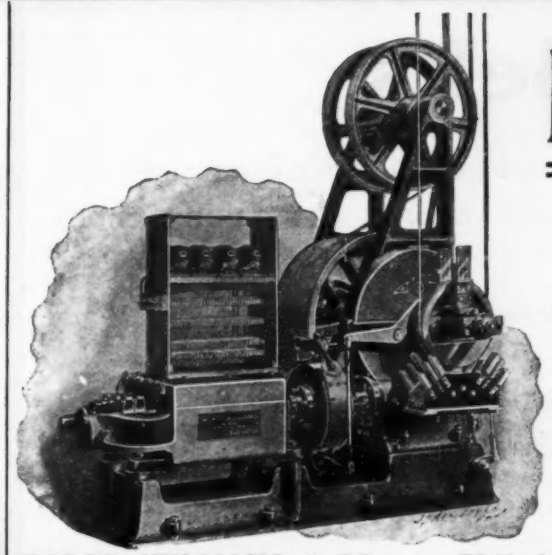

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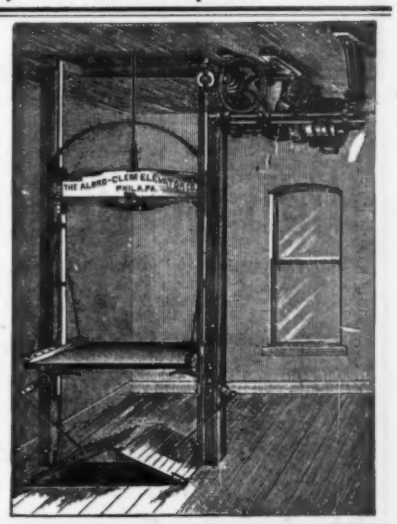

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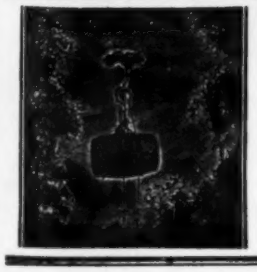

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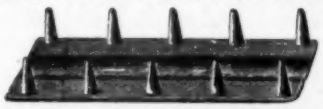

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Important Litigation Relating to Magnesia Covering Patents.

The Keasbey & Mattison Co., the owners of the patents for magnesia covering, have commenced a suit in the United States Circuit Court for the Southern District of New York against the **Philip Carey Mfg. Co., George D. Crabbs, J. E. Breese, Schoellkopf, Hartford & Hanna Co., J. F. Schoellkopf, Jr., James Hartford. W. W. Hanna, C. P. Hugo Schoellkopf and Jesse W. Starr** to restrain the defendants from making and selling magnesia covering for boilers and steam pipes containing more than 50% of magnesia, and especially coverings containing 85% of magnesia.

The bill prays for a preliminary writ of injunction, to be continued during the pendency of the suit, and upon the final determination thereof to be made perpetual, and also demands an accounting and damages.

☞ All persons are respectfully requested to refrain from purchasing covering infringing these patents, as such purchasing must of necessity lead to suit ☜

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Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

Self-Help in Industry.

The Daily News of Pensacola, Fla., is contending that its city cannot depend for future expansion upon its lumber business and the handling of exports, and it is making a steady, persistent effort to encourage the establishment of diversified manufacturing industries. It notes that the commercial organizations of the city, constantly on the watch for new industries, have now under consideration a number of such propositions for non-residents, and it expresses the hope that when the proper time comes the citizens will make a successful effort to secure them. The News insists that citizens must do something for themselves to induce others to co-operate in the industrial upbuilding of Pensacola. The same point is made for North Carolina by the News and Observer of Raleigh, N. C., referring to the announcement in last week's Manufacturers' Record of the establishment at Thomasville of a branch of a New England industry which manufactures machinery for making chairs, furniture, etc. It says that for some time the people of Thomasville sought without success to induce Northern capitalists to manufacture furniture there. Finally, with small capital, they began themselves to make furniture, and now that it has been demonstrated that Thomasville may make furniture profitably, the natural result is seen in the establishment of the new industry there. The News and Observer truly says:

> The town that wants outside capital must first demonstrate that the proposed enterprises will pay by risking their own money. They must give investors an object-lesson of success and show their faith by their works. When they are willing to invest their own money, their own brains, their own muscle, they can usually get all the necessary money for enlargement after they have shown that dividends can be earned.

There is a text for every Southern community to keep before it.

Not for Compulsion.

The summary which has been published in a report by the national industrial commission on arbitration in labor disputes does not indicate that the report will be very strongly in favor of compulsory arbitration. It states that representatives of employers and of workingmen who have testified before the commission have almost uniformly opposed compulsory arbitration, that several State boards of arbitration have expressed an opinion against the system as a general principle, and that one or two such boards have specifically opposed it in any form. Such opinions are in agreement with a sentiment which is rapidly growing in favor of voluntary arbitration. That system is already working satisfactorily in more than one trade and industry and is being cherished on practical lines by an association national in its scope. In the interest of capital and labor it is hoped that it may be generally adopted. Compulsory arbitration can come only through the interference of the State, and such interference in existing conditions is too likely to be too much tinged with demagogy and self-seeking agitation to work any ultimate good for either party to a dispute.

Illinois Central Expenditures

At the annual meeting of the stockholders of the Illinois Central Railroad last week $13,200,000 was appropriated for the purchase of additional rolling stock, the improvement of roadbeds and the extension of the double trackage of the road at various sections between Chicago and New Orleans. In an interview at New Orleans President Stuyvesant Fish stated that the work of improving the facilities of the road would be done right along, and the intention is for the road to be exceptionally well equipped as to rolling stock. While none of the immense sum of money set apart for the improvement of the trackage may be expended immediately at New Orleans, that city, which has already been so much benefited by the expenditure of other millions by the Illinois Central Railroad, will share in the general benefits of the enterprise of the company, which is developing the agricultural and industrial resources of the great section traversed by its lines.

Guarding the Forests.

The national board of directors of the American Forestry Association has adopted a formal resolution approving of the investigation now being made by Dr. C. H. Herty of the University of Georgia for the purpose of devising conservative methods of turpentine cropping. Readers of the Manufacturers' Record will remember that Dr. Herty has spent several months studying the methods of gathering turpentine in Georgia with a view to ascertaining whether there might not be made a change ensuring the preservation of the pine forests of the State. His work, in line with the movement for practical forestry in the United States, promises to preserve a source of great wealth for the South. That he has the support of the national bureau of forestry is a source of encouragement.

Building in the South.

For several months the supply of houses in Richmond, Va., has not been equal to the demand. Similar conditions are noted at San Antonio, Texas, and at Jackson, Miss., although during the last year there have been erected in the latter city many small houses, in some instances the houses being rented even before the foundations have been laid. Activity in building operations at Memphis, Birmingham, Atlanta, Jacksonville and other cities is maintained. There is nothing of a boom in this respect, but the steady, substantial progress both in the construction of entirely new buildings and in the improvement and enlargement of older ones is a sign of a healthy situation of Southern trade and industry.

Roosevelt—Washington.

We fear that not a few of our editorial brethren have been doing themselves and the South an injustice in assuming an overwrought attitude toward the fact that Booker Washington has dined with the President of the United States. Brethren, come let us reason together, one with another.

One of the greatest problems confronting the American people is the negro. That problem must be settled, and settled right, for the good not only of the negro race, but equally as much of the white. Its solution through natural evolution was interrupted by revolution forty years ago. The result, as was to be expected, has been evil, and the demoralization of the negro has paralleled demoralization of the whites. The task before the American people, of which the negro is a permanent element, is first to undo the effects of the crime against the negro, committed in forcing upon a child-race the political privileges won through centuries of struggle by the whites and methods of education which by no means have been demonstrated as unqualifiedly beneficial for other races. A generation certainly has been long enough to demonstrate the mistake of attempting the solution of the problem through long-range philanthropy, approaching at times mawkishness and maudlinism; through base politics, employing the negro as an ignorant tool against the elements that work for the good of the South, and, consequently, bringing the whole of American politics to a low plane, or through a schooling that unfits the negro for the life marked out for him by nature and which tends to add to the already great number of drains upon the respectability, the integrity and the prosperity of the country. The time for a new deal has arrived. The individual for the occasion has appeared.

Real friends of the negro and of the people among whom he must make his home for many years have already reached the wise conclusion that he must be weaned from the influences of ecclesiastico-politics or politico-ecclesiasticism and of the mere book learning provided by pseudo-philanthropy or by the South itself in mistaken imitation of questionable methods elsewhere, and be taught from the ground up the dignity of labor with his hands, supplemented by such proper training as his brain is capable of receiving. In brief, the negro must learn that digging potatoes is quite as honorable an occupation as digging for Greek or Latin roots, if not more so, and one for which he is peculiarly qualified, and that all the culture in the world derived from books is as emptiness unless it is based upon morality of life and integrity of character. No one, under existing conditions, could impress these truths upon the negro as well as a negro. Booker Washington has proved in his own career of forty years his ability to do so.

Remarkable as his character is in many respects, its most notable feature, perhaps, is devotion to the best interests of his race. Of all the individuals who have been recognized as leaders of their race, Booker Washington stands alone in holding his own personal ambition for place or power as of minor importance. The greatest endorsement of the purity and unselfishness of his aims is the failure of many negro preachers and negro politicians to give him hearty co-operation.

When Theodore Roosevelt came to the Presidency the hope was expressed that, hampered as he is by none of the considerations which have limited the usefulness of more than one President, he would exercise his freedom in his political action toward the South. He had already given signal evidence of his intention not to disappoint this hope when his quiet entertainment of Booker Washington at the White House was made the excuse for short-sighted violent criticism of him. This criticism loses sight of the fact that President Roosevelt's treatment of Booker Washington was intended to be strictly in harmony with his recent judicial appointment in Alabama. Men who have no fear that the work being done at Tuskegee by Booker Washington can make the negro superior to the white, and who recognize that the maintenance of race purity rests entirely with the white race, see in the President's conduct an effort to aid, through the weight of his great office, the work of diminishing the evil due to magnifying the weight of the negro in politics. He showed his wisdom in giving Booker Washington a chance to confer with him and to set forth at length his candid, courageous and clear views about the capabilities of his race and the best means for making the most of those capabilities. He would have made a great mistake in listening to the average negro preacher, the av-

erage negro politician or the average white politician covered with the muck of negro politics. In avoiding that mistake President Roosevelt conferred a distinct favor upon the South. This the thinking, reasoning South will recognize.

Criticism of President Roosevelt in his relations with Booker Washington seems to turn upon a feeling of dread that he has set an example in social equality of whites and negroes, and that that example will have baneful effects in the country at large. Perhaps his critics have, in their excitement, forgotten that an expression of such dread may be regarded among the uninformed as a confession that such equality, with all of its possible horrors, is likely. But the question of equality of whites and negroes will remain for the future as it has been in the past—a question of individual taste, by no means affecting the vast majority of the race which abhors any impairment of its purity. We have too much faith in the race instincts of the people who dominate the civilization of the United States to believe that that people, however the reprehensible conduct of individuals has cursed their fellows, would suppress those instincts, even should a President of the United States flatly announce his intention to do so.

The adverse criticism is met by the following facts: Mr. Roosevelt is the President of the United States. As such he is bound in patriotism to represent in the Executive office as best he may the interests of the 76,000,000 inhabitants of the United States, including nearly 9,000,000 negroes.

Booker Washington is the best representative of the negro population of the United States. He has shown in himself the capabilities of his race, and in doing so has shattered more than one of the theories which have hampered the solution of the negro problem.

President Roosevelt, we believe, desires to do his part for the happiness and prosperity of his country. He has the sense to realize that that is dependent upon the happiness and prosperity of the South, and that such a condition will be induced by removing or modifying the causes which have intensified race prejudice.

Booker Washington, of all his race, is the individual who may be depended upon to show President Roosevelt the lines upon which advance is to be safely made in the right direction.

President Roosevelt could not be expected to go to Booker Washington. There was nothing to do but for Booker Washington to call upon the President at his official residence, the White House. As an incident of this conference between the representative of all the people of the United States and the representative of several millions of those people, an invitation to dinner was given and accepted. That incident was as nothing compared with the potentialities for the good of the white race and the negroes involved in the conference of the two representative individuals.

If President Roosevelt may be able to find in the South a man as thoroughly representative and successful in his altruistic, far-reaching and practical work for the vast body of descendants of once-neglected whites in the South as is Booker Washington of his people, a similar conference of the President and that Southern white man will work mightily for the good of the country, whether or not they dine together.

PROGRESS AT SOUTHERN PORTS. V--NEWPORT NEWS.

By W. P. Johnson, Editor of the Daily Press.

[Written for the Manufacturers' Record.]

Seventeen years ago the peninsula which is washed by the James river on the north and the Hampton Roads on the south was in all essentials a wilderness. Today it is the site of a city within whose corporate limits are 25,000 people. Nearby, within the range of vision, but without the municipal fold, is a population of 50,000 more, some day to become citizens of a metropolis that will extend from what is now known as North Newport News to the government reservation at Old Point, nine miles away. Between the city proper and Old Point is a section already closely built up, embracing the towns of Hampton and Phoebus, and a stretch of five miles between the former and Newport News traversed by two electric lines and a steam railroad, and building up with marvelous rapidity.

Where erstwhile was a wilderness, today is a city as modern and as enterprising as any in the country. It has a handsome courthouse and jail, the former built in 1894, two years before the city was incorporated; the latter in 1898. Across the Chesapeake & Ohio terminals are three viaducts, one just completed costing $121,989, the other two slightly less than $50,000 apiece. Two of the principal streets of the city, crossing each other at right angles and extending to the limits of the corporation, north, east, south and west, are paved with sheet asphalt, of which about three miles are down. Bids are now being asked for nearly four miles more of modern paving. The material to be selected will probably be either sheet asphalt or asphalt block. This winter the legislature will be asked to permit the city to issue bonds for an amount sufficient to complete the paving of the principal business streets and to macadamize the cross streets upon which are only residences.

The city has five large brick school buildings, two of which are just being completed. There are also several smaller city schools, in addition to a number of private educational institutions for boys and girls, including a kindergarten. In spite of the fact that this is a working population, the school attendance here is unusually large, proportionately, and great difficulty has been experienced in getting buildings erected rapidly enough to accommodate the demand for room. The local school system has just been reorganized and put upon a much more satisfactory footing than ever before. The high-school course has been made four years instead of three.

There has been completed within eighteen months a magnificent sanitary sewer system, which is being added to rapidly. It has cost to date about $200,000. The cost of connection is but $15.

The government will erect a public building here that will cost about $250,000. The site has been purchased and paid for, and the appropriation has been made. This building is bady needed, both for postoffice and custom-house purposes, and will be put up as rapidly as possible under the somewhat trying system employed by Uncle Sam in furnishing public buildings to cities where they are needed.

There are in Newport News three electric railway companies—the Newport News & Old Point Railway & Electric Co., the Citizens' Railway, Light & Power Co. and the Hampton Roads Railway & Electric Co. The line of the last-named is being constructed as fast as iron can be laid, and it will be in operation within a few months. The other two have been doing a profitable business here for some years.

There are two competing electric-light companies in the city, and light is cheap. A gas company also does a good business. There are several foundries that are prosperous. The city also boasts a knitting mill and a shirt factory, the latter just completed.

There are in Newport News eighteen churches, three of which are new, costing $150,000. Another new church, to cost about $50,000, will be erected within a year.

In 1890 the census gave Newport News a population of 4446. Ten years later the census gave the city a population of 19,635, considerably less than the actual population, by the way, though these figures show an increase of 350 per cent. The present population is undeniably not less than 25,000.

The city has a land assessment of $10,000,000, personalty being assessed at nearly $1,000,000. The assessment on industries is hardly more than nominal. The city's bonded indebtedness is less than $500,000.

There are five banks here and four daily papers, significant indications of the thrift and intelligence of the people and the enterprise of the business men.

So much for the city of Newport News.

Newport News owes her existence to two vast enterprises—the Newport News Shipbuilding & Dry-Dock Co. and the Chesapeake & Ohio Railway Co.

The shipyard employs 6900 men, and will increase the force as rapidly as possible. The weekly pay-roll is $65,000. The capital invested in the plant amounts to nearly $15,000,000, some $2,000,000 of which is represented by improvements made during the past year. These improvements include the vast new dry-dock, the largest on the American continent, just completed at a cost of $1,000,000. This dock will accommodate three ships of ordinary size, and its capacity has been taxed since its completion, while the smaller dry-dock has also been kept busy. The new dock is 827 feet long, top measurement, 806 feet inside caisson, 162 feet broad on top, 80 feet on bottom. The basin holds 24,000,000 gallons, and is supplied by an electrical pumping system with a capacity of 200,000 gallons a minute. The old dock is 610 feet long on top and 130 feet wide on top, its width on the bottom being 50 feet. The company has also installed two new electrical cranes over two new ways. Other improvements include added equipment, dredging, etc. The yard is supplied with the largest electrical lifting crane in the world, having a capacity of 150 tons. In other respects it is perfectly equipped for its enormous business, which is twice as much annually as that of any other shipyard in the United States.

The yard has now under construction work amounting to $23,038,000, with a tonnage of 116,850. Add to this work just completed the battleship Illinois and the Morgan liners El Alba and El Dia, and the amount is increased to $26,833,000, with a tonnage of 140,375.

The following table shows the naval and merchant ships now under construction at this yard:

Names and Class.	Tonnage.	Cost.
Battleship Virginia	15,000	$3,593,000
Arm'd cruis. West Virginia	13,800	3,885,000
Armored cruiser Maryland	13,800	3,775,000
Battleship Missouri	12,500	2,885,000
Armored cruiser Charleston	9,700	2,740,000
Monitor Arkansas	3,250	960,000
Steamer Siberia	18,400	2,000,000
Steamer Korea	18,400	2,000,000
Steamer El Libre	6,000	600,000
Steamer El Siglio	6,000	600,000
Total	116,850	$23,038,000

Vessels just turned out at the yard are the battleship Illinois, with a tonnage displacement of 11,525 and a cost of $2,595,000, and two Morgan boats, El Alba and El Dia, with a tonnage displacement of 6000 each and a cost of $600,000 each. The Illinois is still here in the stream. The merchantmen have gone into the New York-New Orleans trade.

In addition to construction work, the yard is kept busy day and night on repair jobs, the largest of which is the rebuilding of the North German Lloyd liner main, destroyed at Hoboken. The cost of this job, without trimmings, is $600,000. The whole job will come to an even million before the finishing is done and the engines and furniture are placed in the ship.

The other factor in the life of Newport News is the Chesapeake & Ohio Railway Co., which has established here the largest single railroad terminal system in the world, representing an investment of $7,000,000, of which $2,500,000 was spent within the last eighteen months building a second elevator and two new piers.

Concurrent with the growth of the railroad's business the shipping business of the port has grown until it is now one of the most important ports in the United States, though still far behind some of its larger sisters. The flour export business here ranks with that of New York and Baltimore. The week's total often leads the country, is frequently second, and is rarely less than fourth. Exports of grain and other foodstuffs are large, and the export of coal to foreign countries has come to be an important item.

During the ten years ending June 30, 1901, the port exported goods to the value of $212,885,859, as follows:

Year ending June 30,	Value.
1892	$14,124,716
1893	8,105,268
1894	14,485,214
1895	13,469,556
1896	14,847,546
1897	22,079,662
1898	30,283,065
1899	28,208,182
1900	34,736,850
1901	32,554,800
Total	$212,885,859

It is only during recent years that the imports at this port have amounted to anything worth speaking of, but during the past two years, especially, there has been a marvelous increase in this important respect. The duties here now invariably go over $100,000 a month, and the cost of collection has rapidly decreased until it is now less than five cents for the dollar.

The port, of course, gets credit only for the "consumption entry" imports, upon which duties are paid here. The "immediate transportation" imports—the goods that go through to interior cities, where duty is collected—furnish a very important feature of the importing business here, however.

During the past ten years the total value of "consumption entry" imports was $12,953,330. The amount of duty collected here on these imports was $3,067,846.54.

The total value of "immediate transportation" imports for the same time was $20,439,836, the estimated duty on which was $8,810,108.75.

This makes the total value of imports for the decade $33,393,166; the total amount of duties, $11,877,955.29.

The following tables show the growth in imports during the ten years ending June 30, 1901:

IMMEDIATE TRANSPORTATION IMPORTS.

Year ending June 30,	Value.	Duty.
1892	$184,954	$79,414 99
1893	249,180	108,181 06
1894	575,711	212,820 78
1895	1,357,862	576,174 12
1896	1,660,698	640,380 11
1897	1,390,406	438,801 33
1898	1,902,873	929,717 30
1899	2,947,119	1,441,597 75
1900	4,578,918	1,881,639 85
1901	5,592,115	2,001,381 46
Totals	$20,439,836	$8,810,108 75

CONSUMPTION ENTRY IMPORTS.

Year ending June 30,	Value.	Duty.
1892	$180,114	$37,666 20
1893	30,538	10,995 56
1894	307,200	96,259 38
1895	1,032,743	235,667 23
1896	1,133,406	193,147 82
1897	1,162,768	184,016 78
1898	930,029	228,743 09
1899	1,304,597	331,477 36
1900	2,845,396	700,782 92
1901	4,026,539	1,049,090 20
Totals	$12,953,330	$3,067,846 54

The rapid increase in the imports is due to the fact that connections in foreign countries are just being established, so that vessels that formerly came back here "light" now bring cargoes. The establishing of new lines has also had much to do with it, and the business may be expected to continue to grow until a normal proportion between exports and imports is reached.

Nothing Narrow In It.

[Boston Mill and Shop News.]

In another part of this paper will be found a short review or notice of the anniversary number of the Baltimore Manufacturers' Record, than which no more interesting and editorially well-conducted exchange comes to this office, as, aside from its estimable record of twenty years' service to the trade it seeks to sustain, its comments and articles of moment on the important trade issues of the day have not only been well written, but have been viewed from the standpoint of the broadest scope. Nothing narrow in the make-up of the Manufacturers' Record of Baltimore, as can be readily seen even by a casual reader of its pages. We wish it more of its well-deserved success.

To Improve the Tennessee.

The Tennessee River Improvement Association, which met last week at Huntsville, Ala., with Judge Thomas R. Roulhac of Sheffield, Ala., president; Gen. John T. Wilder of Knoxville, vice-president, and Mr. John C. Patton of Chattanooga, Tenn., secretary and treasurer, and representing Alabama, Georgia, Kentucky, Mississippi and Tennessee, adopted a memorial to Congress asking an appropriation of $1,500,000 to make the navigation of the Tennessee river full and uninterrupted. The suggested appropriations are $991,000 for Colbert shoals, $300,000 for the mountain section, $65,000 for the portion above Chattanooga, $25,000 for that below Riverton and $100,000 for tributaries. The convention pointed out that Alabama, Georgia, Kentucky, Mississippi, Missouri, North Carolina, Ohio, South Carolina, Tennessee and Virginia would be permanently benefited by a completion of the proposed improvements.

Developing Water-Power.

Fred J. Coxe of Wadesboro, N. C., is now completing arrangements for the development of the Bluitt Falls on the Pee Dee river. Charter has been secured for the Bluitt Falls Electrical Power Co., with capital stock of $250,000, and it is expected that early contracts will be let for the construction of dam, the installation of water-power machinery and of electrical equipment for the transmission of the power to Wadesboro, Rockingham and other neighboring towns, to be utilized in industrial operations there. It is believed that 10,000 horse-power can be developed.

Looking for Pine Forests.

Mr. H. E. Gyles, secretary and treasurer of the Hughes Specialty Well Drilling Co. of Charleston, S. C., writes to the Manufacturers' Record that he desires information about yellow-pine timber land in South Carolina, Georgia and Florida, and about new and second-hand machinery for a creosoting plant.

MOVEMENT OF THE COUNTRY'S POPULATION.

Significant Tendencies in the North and South During the Past Decade.

By Edward Ingle.

[Written for the Manufacturers' Record.]

Statistics of the population of the United States obtained in the census of 1900 in comparison with those of the census of 1890 reveal interesting tendencies in the movement of population, the most significant, perhaps, being the rather strong inclination on the part of negroes to move from the tier of older Southern States either to the Northern cities or toward the undeveloped regions of the Southwest.

Figures of the accompanying table show that the white population of the forty-five States, four Territories and one District within the limits of the United States increased from 55,093,283 to 66,810,711, or 11,717,423, equal to 21.25 per cent., while the increase of their negro population was from 7,488,676 to 8,833,212, or 1,344,536, equal to 17.95 per cent.

States and Territories.	Whites. 1890.	Whites. 1900.	Whites. Increase.	Whites. Inc. p. c.	Negroes. 1890.	Negroes. 1900.	Negroes. Increase.	Negroes. Inc. p. c.
Alabama	833,718	1,001,152	167,434	20.08	678,489	827,307	148,818	21.93
Arkansas	818,752	944,580	125,828	15.36	309,117	366,856	57,739	18.67
California	1,111,672	1,402,727	291,055	26.18	11,322	11,045	*277	*2.44
Colorado	404,468	529,046	124,578	30.80	6,215	8,570	2,355	37.89
Connecticut	733,438	892,424	158,986	21.67	12,302	15,226	2,924	23.76
Delaware	140,066	153,977	13,911	9.93	28,386	30,697	2,311	8.14
Florida	224,949	297,333	72,384	32.17	166,180	230,730	64,550	38.84
Georgia	978,357	1,181,109	202,752	20.72	858,815	1,034,998	176,183	20.51
Idaho	82,018	154,495	72,477	88.36	201	293	92	45.77
Illinois	3,768,472	4,734,873	966,401	25.64	57,028	85,078	28,050	49.18
Indiana	2,146,736	2,458,502	311,766	14.52	45,215	57,505	12,290	27.18
Iowa	1,901,086	2,218,667	317,581	16.70	10,685	12,693	2,008	18.79
Kansas	1,376,553	1,416,319	39,766	2.88	49,710	52,003	2,293	4.61
Kentucky	1,590,462	1,862,309	271,847	17.09	268,071	284,706	16,635	6.20
Louisiana	558,395	729,612	171,217	30.66	559,193	650,804	91,611	16.38
Maine	659,263	692,226	32,963	4.99	1,190	1,319	129	10.84
Maryland	826,493	952,424	125,931	15.23	215,657	235,064	19,407	8.99
Massachusetts	2,215,373	2,769,764	554,391	25.02	22,144	31,974	9,830	44.39
Michigan	2,072,884	2,398,563	325,679	15.71	15,223	15,816	593	3.89
Minnesota	1,296,159	1,737,036	440,877	34.01	3,683	4,959	1,276	34.37
Mississippi	544,851	642,900	98,049	17.99	742,559	905,930	163,371	22.00
Missouri	2,528,458	2,944,843	416,385	16.46	150,184	161,234	11,050	7.36
Montana	127,271	226,283	99,012	77.79	1,490	1,523	33	2.21
Nebraska	1,046,888	1,056,526	9,638	.92	8,913	6,269	*2,644	*29.66
Nevada	39,084	35,405	*3,679	*9.41	242	134	*108	*44.62
New Hampshire	375,840	410,791	34,951	9.29	614	662	48	7.81
New Jersey	1,396,581	1,812,317	415,736	29.76	47,638	69,844	22,206	46.61
New York	5,923,952	7,156,881	1,232,929	20.81	70,092	99,232	29,140	41.57
North Carolina	1,055,382	1,263,603	208,221	19.72	561,018	624,469	63,451	11.30
North Dakota	182,123	311,712	129,589	70.91	373	286	*87	*23.32
Ohio	3,584,805	4,060,204	475,399	13.26	87,113	96,901	9,788	11.23
Oregon	301,758	394,582	92,824	30.76	1,186	1,105	*81	*6.82
Pennsylvania	5,148,257	6,141,664	993,407	19.29	107,596	156,845	49,249	45.77
Rhode Island	337,859	419,050	81,191	24.03	7,393	9,092	1,699	22.98
South Carolina	462,008	557,807	95,799	20.73	688,934	782,321	93,387	13.55
South Dakota	327,290	380,714	53,424	16.32	541	465	*76	*14.04
Tennessee	1,336,637	1,540,186	203,549	15.22	430,678	480,243	49,565	11.50
Texas	1,745,935	2,426,669	680,734	38.98	488,171	620,722	132,551	27.15
Utah	205,899	272,465	66,566	32.32	588	672	84	14.28
Vermont	331,418	342,771	11,353	3.42	937	865	*72	*7.68
Virginia	1,020,122	1,192,855	172,733	16.93	635,438	661,008	25,570	4.02
Washington	340,513	496,304	155,791	45.75	1,602	1,778	170	10.92
West Virginia	730,077	915,233	185,156	25.36	32,690	43,532	10,842	33.16
Wisconsin	1,680,473	2,057,911	377,438	22.46	2,444	3,201	757	30.19
Wyoming	59,275	89,051	29,776	50.06	922	1,392	470	50.97
Arizona	55,580	92,903	37,323	67.15	1,357	1,848	491	36.18
Dist. of Columbia	154,695	191,532	36,837	23.81	75,572	86,702	11,130	14.72
Indian Territory	109,393	302,680	193,287	176.68	18,636	36,853	18,217	97.75
New Mexico	142,719	180,207	37,488	26.26	1,956	1,610	*346	*17.63
Oklahoma	58,826	367,524	308,698	524.76	2,973	18,831	15,858	533.40
Total	55,093,283	66,810,711	11,717,428	21.25	7,488,676	8,833,212	1,344,536	17.95

*Decrease.

Negro population in 1900 in Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming estimated.

The increase in the South, including the District of Columbia and the fourteen States from Maryland to Texas south of Mason and Dixon's line, the Ohio river and Missouri, was, of whites, from 12,880,833 to 15,699,304, or 2,818,471, equal to 21.88 per cent., and of negroes, from 6,710,582 to 7,835,392, or 1,124,810, equal to 16.76 per cent., while in the rest of the country the increase was from 42,212,450 to 51,111,407, or 8,898,957, equal to 21.08 per cent., and of negroes, from 778,094 to 997,820, or 219,726, equal to 28.23 per cent.

Of the white population there was a rate of increase in twenty States, four Territories and the District of Columbia above the average percentage of the increase in the country, Florida with an increase of 32.17 per cent., Louisiana 30.66 per cent., Texas 38.98 per cent. and West Virginia 25.36 per cent., being the Southern States fortunate in this particular. One State, Nevada, lost 3679 of its population, a percentage of 9.41 per cent., and a curious manifestation is the failure of New York, with an actual increase of 1,232,929, Pennsylvania with an increase of 993,407, and Ohio with an increase of 475,399, to reach the average percentage of increase in the country, Ohio's percentage of increase being but 13.26.

Three States in the North—New York, Illinois and Pennsylvania—had a combined increase of 3,192,737, or 374,266 more than the whole increase in the South, where the greatest actual increase, as well as the greatest percentage of increase, was in Texas. The 680,734 additional inhabitants of that State represent 24 per cent. of the total Southern increase, and are but 193,101 less than the total increase in the six New England States, where Massachusetts led with an increase of 554,391, with Connecticut second with 158,986, the comparatively small increases in Maine, New Hampshire and Vermont making percentages of 4.99, 9.29 and 3.42, respectively.

Several individual Southern States do not make a satisfactory showing in comparison with other States of their section or with States elsewhere. South Carolina's increase of 95,799 was but 2975 more than Oregon's and 2249 less than Mississippi's; North Carolina's 208,221 increase was 4672 more than Tennessee's and 112,422 more than South Carolina's, while Virginia's increase of 172,733 was 12,423 less than West Virginia's increase, but Alabama's increase of 167,434 was 8448 more than Connecticut's, Texas' increase of 680,734 was 126,343 more than that of Massachusetts, and more than eight times the total increase of Maine, New Hampshire and Vermont.

Of the negro population there was a decrease of 277 in California, 2644 in Nebraska, 108 in Nevada, 87 in North Dakota, 81 in Oregon, 76 in South Dakota, 72 in Vermont and 346 in New Mexico, while there was an increase in three Territories and twenty-one States, the greatest increases being, of course, in the South, Georgia leading with 176,183, followed by Mississippi with 163,371, Alabama 148,818, Texas 132,551, South Carolina 93,387, Louisiana 91,611, Florida 64,550, Arkansas 57,739 and Tennessee 49,249, four of these—Alabama, Florida, Mississippi and Texas—having suggestive manifestations in comparison with the increase of the white population. The rate of negro increase was greater than that of the white in Alabama, although the actual increase was 18,616 less. Its rate was greater than that of the white in Florida and Mississippi, the actual increase of the negroes in the latter State being 65,322 more than that of the white, but in Texas the rate of the negro increase was much less than that of the white, where the actual increase of the whites was 60,000 more than the total negro population had become in 1900.

In 1890 three States—Louisiana, Mississippi and South Carolina—had more negro inhabitants than white. By 1900 Louisiana had overcome that disproportion by gaining during the ten years 171,217 in white population, or 30.66 per cent., and only 91,611 of negro population, or 16.38 per cent. Many of the Louisiana negroes went into Mississippi, but many others probably took part in the movement through Arkansas and Texas of both whites and negroes into Oklahoma and Indian Territory, which increased in the former Territory the white population by 308,698, or 524.76 per cent., and the negro population by 15,858, or 533.40 per cent., and in the latter the white population by 193,287, or 176.68 per cent., and the negro population by 18,217, or 97.75 per cent.

These manifestations, in connection with the fact that the negro population of New Mexico fell off 17.63 per cent., point to a continuation of the movement of the agricultural class of negroes toward the fresher lands of the Southwest, particularly in Oklahoma and Indian Territory, Arkansas and Texas being only temporarily affected by the shifting population. The rate of increase of the negroes in Alabama is to be largely accounted for by the attraction of mining and manufacturing industries there, while the influx into Mississippi was undoubtedly increased by the advance made in railroad building and the extension of the lumbering industry.

In the meanwhile there is another movement, most marked in what were once known as the border States, of the town negro to move to Northern cities. The rate of increase of the negroes in Delaware was 8.14 per cent., in Maryland 8.99 per cent., in Virginia 4.02 per cent., in Kentucky 6.20 per cent., in Missouri 7.36 per cent., all far below the birth rate, and in West Virginia 33.16 per cent. The actual increase in those six States was but 85,815, or 63,003 less than that in Alabama alone, and, what is much more significant, 64,909 less than the combined increase in New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois.

The increase in New York, 29,140, was 9733 more than that in Maryland and 3570 more than that in Virginia.

The increase in Pennsylvania, 49,249, was 29,842 more than that in Maryland and 38,407 more than that in West Virginia. Illinois' increase, which nearly equalled that of New York, was more than twice that of Missouri and 11,415 more than the 16,635 increase in Kentucky, while Indiana's increase, 12,290, was 1240 more than that of Missouri.

The figures of the increases in localities containing or contained in certain cities reveal the goal of much of the drift from the border States. In the ten years the negro population increased from 23,601 to 38,616 in New York county, New York;

from 11,307 to 18,367 in King's county, New York; from 7475 to 8583 in Camden county, New Jersey; from 6910 to 12,559 in Essex county, New Jersey; from 39,371 to 62,613 in Philadelphia, Pa.; from 7850 to 17,040 in Pittsburg, Pa.; from 14,757 to 17,695 in Hamilton county, Ohio; from 11,118 to 17,536 in Marion county, Indiana, and from 14,910 to 31,838 in Cook county, Illinois.

Revised figures may alter in slight degree the general totals, but will not change the indication in the fact that the white population of the South increased at a greater rate, if even so little, than the rest of the country, and that its negro population's rate of increase was below that of the country; that the dispersion of the negro is slowly under way, and that he is moving with sufficient rapidity and in large enough numbers to States outside the South to bring the negro problems close home to all thoughtful men, and hence to hasten its solution.

FIRM AT BIRMINGHAM.

Output of Iron Furnaces Is Closely Sold Up.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., October 22.

The iron market the past week was one of great firmness, and those who had iron to sell had no difficulty in placing it at current values. The trouble was to get what buyers wanted, and in volume desired. New business for the remainder of this year had a hard time of it, inasmuch as the furnaces are so closely sold up that but little of it can be accepted. It is very evident from the buying that the consumers are taking the necessary requirements to cover their accepted contracts. This is shown by the acceptance of deliveries extending into 1902. For the first quarter they have been free, and a considerable amount has been placed for the second quarter, and even into July. There is the same old cry for prompt shipment. In some instances shops have had to shut down pending the arrival of iron. The prospect for relief is not good. There is a good deal of old business on which delivery hangs fire. The iron is ready to go, and the sellers are anxious to ship it, but the cars are "non est." One interest had booked to ship this month 40,000 tons of iron, and up to close of the week past, though clamoring for cars, it had succeeded in shipping but 10,000 tons. It will be fortunate if, at the close of the month, one-half has gone. There is so much of this old business yet to go and so many appeals are on file to clean it up that new business for prompt shipment must take a back seat.

Until last week there has been no sale for some time of basic iron. But during the week one transaction covering 15,000 tons was made. The price could not be obtained, and the only particulars concerning it one could get were it was for first half of 1902. Such quantities are taken only by the large steel trusts, and the purchase is significant as indicating that current values will probably prevail. Stocks are diminishing just to the extent that transportation is provided. The close of the year would find our furnace yards cleaned up if cars were promptly supplied on demand.

In contemplating the decrease in stocks and the growing scarcity of iron it is well to bear in mind that we are not working to our maximum capacity. Several of our furnaces are out of blast for relining and general repairs, and in a number of instances two objects are kept in view in the process of reconstruction of the furnaces. These are, first, greater efficiency, and second, increased capacity. It takes time to rehabilitate a furnace, and it will probably take until January to put our furnace capacity to the test for quantity. By that time the largest furnace in the district, now being erected at Thomas by the Republic Company, will be in blast. The following interests have furnaces out of blast that are undergoing reconstruction: The Tennessee Coal, Iron & Railroad Co., the Sloss-Sheffield Company, the Alabama Consolidated Coal & Iron Co. and the Woodward Iron Co. Gradually they will come into commission and others go out, until, say by January, we will be pretty nearly "brand new."

The Alabama Consolidated will soon have the Mary Pratt furnace added to its capacity of 12,000 tons per month from the Ironaton and Gadsden furnaces. The Trussville furnace is reported as about ready to be lighted. These are about all the additions we are likely to have to furnace capacity in the near future.

It is very evident that additions to large industries already established at Ensley City and the erection of new ones have passed the stage of contemplation, and are entering the realm of reality. The Birmingham Railway Co. and the Electric Power Co., together with the Gas Company, all consolidated, will soon commence expenditures on their properties that will aggregate $2,000,000. All the new enterprises on foot that will assume form and shape by January will assure the expenditure of $10,000,000.

There is a fine demand for coal, and the development of the Beaumont oil fields has so far been of no injury to the coal business here. It is simply limited by the ability of the railroads to furnish cars.

Attention has been called to the fact that labor in the district is not equal to the demand for it. In all lines there is a cry for it, and the prospect for constant, steady work could not be better. The visit of Mr. Jeans, the English authority on iron, is a very welcome one, and every effort will be made to render it pleasant socially as well as instructive. J. M. K.

The Beaumont Oil Field.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, October 19.

It is definitely decided that the large refinery to be erected by the Central Asphalt & Mining Co., of which C. A. Towne of Minnesota is the moving spirit, will be erected near Beaumont. The plant will need some forty acres of ground, and as this much land could not be secured immediately in the city, the buildings will be erected at a point a few miles south of Beaumont, where the land has been secured. Mention of this project has been made before, but it is a certainty now that the company will soon proceed with the erection of its buildings. This is the first manufacturing establishment to be put up in Beaumont as a result of the oil strike. The purpose of the Central Asphalt & Mining Co. is primarily to manufacture asphalt for paving purposes, and supplementary thereto to extract by-products from the oil, the principal one of which will be mineral paints. This company has already entered into a contract for several million barrels of oil.

Five new wells came in during the week, making the total number seventy-five now on the Hill. Up to the time of writing the Jennings well has not been completed as a finished well, the sand trouble having prevented this desirable consummation. The same trouble seems to prevail at Sour Lake. It was reported on reliable authority that during the past week one of the Guffey wells at Sour Lake for a short time spurted oil in good volume for a distance of twenty to thirty feet over the top of the derrick. But the sand interfered again, and soon the flow of oil ceased. It is a serious question in regard to this sand, and it is doubtful whether it will ever be overcome sufficiently to permit the Sour Lake wells to become gushers. There is no question but what good pumping wells can be had at Sour Lake, but, of course, these will hardly be a good financial proposition so long as oil flows of its own force on Spindle Top Hill.

In the last two weeks more interest has been taken in outside operations, due principally to the strikes of oil at Jennings and Sour Lake. The rumor still remains persistent that the Guffey Company can bring in a well at Big Hill, a few miles southwest of here, at any time it wishes, but there is no way to establish the truth of this. The belief that oil has been found by it is generally shared by all who have investigated the Big Hill question.

A Winter Home.

The piney woods of the South offer a place for rest and recreation which thousands of Northern people appreciate every winter. One of the most attractive resorts among the pines is the Court Inn, located at Camden, S. C., less than twenty hours' ride from New York by the Seaboard Air Line, and reached also by the Southern system and the Atlantic Coast Line. Here has been erected on the site of the historic Uphton Court an abiding-place provided with every convenience which could be reasonably asked for, and which is managed in a way to please in every respect people of refinement. The temperature is remarkably even, and the large tract of pine land fills the air with life-giving elements enjoyed by the robust as well as the invalid. In the vicinity of Camden still remain earthworks constructed during the Revolutionary period, while other interesting historical spots can be studied.

A shooting cover of 8000 acres is available for sportsmen, while in the vicinity of the Inn anglers will find a lake well stocked with game fish. This portion of the South is really a paradise to lovers of outdoor sports, with its miles of paths under the pines suitable for walking or horseback riding. Foxes are also to be found in the vicinity, and anyone fond of a cross-country run can enjoy the sport to his heart's content. In the vicinity of the hotel ornamental gardens have been arranged, partly from the natural plants and shrubs, and invalids can secure all of the exercise required in the open air without exertion, and in the midst of that which pleases the eye. The Court Inn is managed by Messrs. Caleb Ticknor & Son, well known as hosts of one of the principal hotels at Great Barrington, Mass.

West Virginia's Geology.

The new geological map of West Virginia, first published under date of January 10, 1899, by the West Virginia Geological Survey, has recently been revised, new features added and republished. The map shows in separate colors the three great coal formations of West Virginia, viz., the New River or Pocahontas, the lowest, the Allegheny-Kanawha series in the middle, and the Monongahela or Pittsburg (Connellsville) at the top. Two features not shown on the original map have been added in this edition, viz., the prominent anticlinal lines and the locations and names of every coal mine in the State shipping coal by rail or river up to July 15, 1901, the approximate locations of the mines being indicated by numbered black dots, and the corresponding names and numbers printed on the margin of the map by counties. The map shows the coal, oil and gas developments of the State at a glance, and should prove of much use to everyone interested in these subjects, even though the topographic base of the map is unavoidably very inaccurate, and must remain so until the topographic map now being constructed by the co-operation of the State and United States Geological Survey shall have been completed five or six years hence. The State Geological Commission has placed the map on sale for fifty cents at the office of the Survey, Morgantown, W. Va.

Texan Values Increase.

A dispatch from Austin says that the total value of taxable property in Texas under the listing for 1901 will be $980,000,000, a net increase over 1900 of $60,000,000. The dispatch says:

"The great, or rather abnormal, increase in taxable property is attributed chiefly to the discovery of oil at Beaumont, which had a tendency to increase the valuations on acreage property in a greater proportion than town and city lots, but a glance at the tax rolls of some of the counties not considered in the oil region also shows a great increase over last year. Maverick county, in Southwest Texas, and not in the oil district, shows an increase of $250,000 over last year. Walker county, in East Texas, shows an increase of over $200,000. The increase in Limestone county, which is not affected by the oil belt, shows an increase of nearly $300,000. Jefferson county has decidedly enjoyed the greatest increase in valuations. In 1900 the total amount of acreage was rendered at $2,217,785, and the town lots in the entire county valued at $2,077,565. In 1901 the acreage was increased to $4,708,500, and the lots $2,998,190, which is a net increase of over $3,000,000. The counties in North Texas have also increased in valuations to a large degree, as will be noticed by a glance at the tax rolls."

Glass Works Established.

An important addition has been made to the manufacturing interests of Sistersville, W. Va., in the establishment of the glass plant there. An expenditure of about $20,000 has been made for the buildings and equipment, blowing department being 110x120 feet, flattening building 104x110 feet, potroom 30x60 feet, box shop and clayroom 30x100 feet and warehouse 40x80 feet. These structures are of frame, covered with corrugated iron. This industry was secured by a donation of three acres of land for site and a bonus of $8000 given by the citizens of Sistersville, and the company is obligated to operate the works in the manufacture of window glass ten months annually for three consecutive years, employing at least sixty-five men. Title to the site does not rest in the company until these provisions are complied with. The Sistersville Window Glass Co. was organized last May by practical glass workers from Indiana, and they will all work in the various departments.

Improving by Docks.

Work has been commenced at Lazaretto Point, on the river near Baltimore, for the construction of the large docks and warehouses of the Hazard Wharf Co., incorporated recently. The cost of the land and improvements will be $200,000. Large storage sheds, railway switches, sidings, slips and docks will be built, the equipment to be especially designed to meet the requirements of heavy iron and steel, structural work, timber, nitrates, and all heavy freight. The company's land includes seven acres, with 1200 feet of water frontage.

Mr. A. H. Dixon, a representative cotton spinner of Manchester, England, is in this country investigating cotton-growing, being especially interested in the Sea Island cotton grown in the vicinity of Charleston.

Will Benefit Columbus.

It is announced at Columbus, Ga., that capitalists have purchased control of the Chattahoochee Falls Co., and will invest $1,000,000 in the thorough development of that company's property. This property includes 1000 acres of land, of which 7000 feet front on the river, where a fall of forty-two feet will afford, it is claimed, about 14,000 horse-power. A dam 1600 feet long will be required across the river. Messrs. George J. Baldwin of Savannah, Ga.; Stone & Webster of Boston, Mass., and other capitalists of New England are the purchasers.

To Make Florida Sugar.

Messrs. M. A. Carlson, A. M. Soderlind and Fred Reynolds of Chicago completed last week the purchase for $7500 of 1500 acres of land near Laurel Hill, Fla., which will be converted into a large sugar-cane plantation, with syrup mills complete. One hundred acres will be planted in sugar-cane next spring, and the acreage will be increased each spring until the entire tract is under cultivation. Cultivating, grinding and evaporating equipments of the latest improved pattern will be purchased for the enterprise.

Stone Production in 1900.

The value of the stone product of the United States in 1900 was $48,008,739, a gain of $3,918,069 over 1899. The value of this product in the South by States was as follows: Alabama, $541,240; Arkansas, $238,830; Florida, $128,381; Georgia, $1,076,101; Kentucky, $234,430; Louisiana, $118,192; Maryland, $1,009,357; North Carolina, $285,172; South Carolina, $539,217; Tennessee, $674,109; Texas, $237,835; Virginia, $810,609; West Virginia, $119,316, and total, $6,012,789.

Galveston Improvements.

The city commission of Galveston, Texas, has adopted the budget for the next fiscal year beginning November 1, 1902. The budget provides for an appropriation of $215,964. Included in it are $30,000 for drainage and paving purposes, $21,240 for the fire department, $17,958 for water-works and sewer department, $7322 for the health department and $5988 for the electric-light department.

Lake Steamer for the Atlantic.

The steamer Northeastern of Chicago has sailed for Sparrow's Point, where she will take on a cargo of steel rails for Galveston, Texas. The Northeastern is one of the type recently built upon the Great Lakes, and adapted for seagoing purposes as well. She will reach Sparrow's Point by way of the Great Lakes, the St. Lawrence river and the Atlantic.

Mr. F. Hopkinson Smith's most ambitious story, "The Fortunes of Oliver Horn," begins in the November Scribner's. It deals with the career of a young artist who comes to New York to seek fame in his profession. The author has drawn upon his own intimate knowledge of the literary and art life of the past thirty-five years, and gives a vivid and attractive impression of the "artistic atmosphere" in which his characters move, and which often seems so full of glamour to the looker-on. These early chapters are characterized by a rare sense of refined humor, and the passages of sentiment and pathos are handled with a certain vigor and manliness that have already done so much to establish the author's popularity. Each instalment will have an illustration by Walter Appleton Clark.

FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

Russia Needs Farm Machines.

W. Arnd of Warsaw writes to the Manufacturers' Record in encouragement of American manufacturers of agricultural machinery to seek an outlet in Russia. He writes:

"In recent years the efforts of husbandry in Russia have been continuously directed towards perfecting itself in every possible manner, and consequently improved farming machinery, and especially mowing machines, find a ready market in this country. Furthermore, the same social conditions are as apparent in Russia as elsewhere in Europe; that is, the countryfolk everywhere tend to concentrate in the cities and industrial centers, where better wages are offered them.

"In consequence of both the above-named circumstances, Russia presents a good outlet for all kinds of farming apparatus, more especially for improved reaping machines, the necessity for which is daily increasing, the more so since the same are not manufactured in this country, but are imported in great quantities from America. The import of such machinery is especially favored by the fact that they are permitted to enter duty free at present, and consequently not subject to customs charges.

"As is evident from the above, Russia now offers an extensive field of operations to makers of reaping machines, and it would therefore be extremely profitable to them to erect branch factories in Russia in order to curtail the great outlay necessarily connected with the transportation of such appliances.

"If such a factory were established here it would not be a difficult matter to prevail upon the givernment to make such machinery dutiable, since the Russan authorities seek always to encourage those domestic industries which are not fully developed. Under such relations factories within the Russian border can, as a mattr of course, count upon a substantial profit. An undertaking of that nature could be carried out much more easily at present, for the reason that the local iron-workers have not enough work for their specialties, and they would therefore willingly establish relations with a factory erected for such a purpose.

"Many of the lighter parts of such machines could be made in America, leaving the heavier parts to Russia, and they could be assembled and put together here."

Trade With China.

Henry B. Miller, United States consul at Niuchwang, China, in submitting a list of manufactured articles from abroad used in China, dwells particularly upon the inferiority of many of the goods, cheapness seeming to be the predominating characteristic, especially in Japanese productions. He writes that the Japanese are imitating a vast number of foreign goods, being especially shrewd in imitation of brands, and are putting a cheaper quality on the market. The Chinese are very economical in their use of articles, and hence cheap and poorly-made goods will last them much longer than other people. This characteristic makes the Chinese market for flimsy, gaudy and cheap goods a good one in many lines. One of the peculiar features in China pointed out by Mr. Miller, illustrating the intense economy of the people, is the great quantity of old iron imported —plates, tubes, wagon ties, horseshoes, railway spikes, wire rope, hoops and general scrap iron. This is worked over, welded together and put to various uses in the small blacksmith shops throughout the country. Mr. Miller adds:

"One of the most serious mistakes made by United States manufacturers is that they too readily trust their business to the hands of foreigners, many of whom have never been in our country, and care nothing about it beyond the special line of goods they handle. It is perfectly natural for them, when a chance for trade in any other line comes before them, to introduce the goods from their home country. If the American goods now sold in China were handled entirely by American firms, I am convinced that the sale would be increased 25 per cent."

Large Steamships.

The launching of the steamship Siberia, which will form one of a fleet to be operated between San Francisco and the Asiatic coast, was successfully accomplished at the yard of the Newport News Shipbuilding & Dry-Dock Co. Especial interest attaches to the construction of this vessel, as she is one of the largest passenger and freight ships ever constructed in the United States. The Siberia is 572 feet 4 inches in length, 63 feet beam and 40 feet in depth, and has a displacement of 18,600 tons, drawing 27 feet of water when loaded. She is thirty-six feet longer than the St. Paul or St. Louis of the America Line, which will give an idea of her dimensions. Accommodations will be provided for 200 first-class passengers and about 1500 steerage passengers. The engines will furnish 18,000 horse-power, the estimated speed being between eighteen and twenty knots an hour. The Korea, which is being built at this yard for the same service, will be identical in size with the Siberia, and the contract for the two vessels represents an outlay of nearly $5,000,000.

Illinois Central Grain Traffic.

President Stuyvesant Fish of the Illinois Central Railroad Co., who recently visited New Orleans, expressed the opinion that the grain crop handled by the Illinois Central averages between 75,000,000 and 90,000,000 bushels annually. A considerable portion of this freight comes to New Orleans for export. Referring to the proposed improvements to be made by the Illinois Central and the increase of $13,200,000 in the capital stock of the company, Mr. Fish stated that a considerable mileage of second track will be built between Chicago and New Orleans during the coming year. This confirms the statements of other officials of the Illinois Central on the same subject.

Americans in Russian Market.

According to the report of Mr. H. M. Grove, British consul at Moscow, Russia, the United States has become a strong competitor in the Russian market in the sale of machinery for cotton and flax mills. Although the British manufacturers have thus far held their own, he states that the American exporters are steadily extending their market. In Southern Russia American agricultural machinery is being rapidly introduced, and agencies are to be found at Odessa and other cities.

New Steamship Line.

F. D. Bittinger of Galveston has become interested in the proposed line of steamships to ply between Galveston and Central America. A company entitled the Nicaragua Steamship Co. has been organized to take up the enterprise with $300,000 capital stock. The banana trade will be the principal line of business.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

A Birmingham Rumor.

A dispatch from Birmingham, Ala., is to the effect that the Railway & Construction Improvement Co. of New Jersey, a recently-organized corporation, has secured control of the Birmingham Belt Railroad. The principals in this company are H. M. Atkinson of Atlanta and W. W. Mackall of Savannah. The Birmingham Belt Railroad is in the suburbs of Birmingham, and would afford excellent terminals for any system which desired to reach the city. Several weeks ago it was reported that the property was to be purchased by Mr. Atkinson and his associates in the interest of the Seaboard Air Line, but this statement was denied at the time. Another report in connection was to the effect that the Seaboard and the St. Louis & San Francisco Company will become jointly interested in the road, the Railway & Construction Improvement Co. being formed to represent the railroad corporations. In that connection it is reported that the East & West Railroad has been acquired by the Seaboard, and will be used as a portion of its line to a junction with the Birmingham Belt road. Mr. Mackall, it is understood, is one of the legal representatives of the Seaboard Air Line at Savannah.

The relations of the Kansas City, Memphis & Birmingham road and the Seaboard Air Line prior to the absorption of the former by the St. Louis & San Francisco Company were so intimate that a report was current in financial circles that they would eventually form another route east and west from the Atlantic coast to Kansas City. The theory of dealers in securities of these companies is that the present transaction will culminate in the formation of such a trunk line.

West Virginia Central Report.

A dispatch from Wheeling, W. Va., is to the effect that the West Virginia Central & Pittsburg Railway will within the next year be extended from a connection with the Little Kanawha Railroad in West Virginia to tidewater at Baltimore. At present it is in operation between Cumberland, Md., and Belington, W. Va., a distance of 131 miles, with a branch now being completed to a connection with the Chesapeake & Ohio, also branches to Davis and Huttonville. It is stated that an extension will be built to Palestine, W. Va., the terminus of the Little Kanawha, and by means of this line the Ohio river will be reached. The Western Maryland extends from Baltimore to Hagerstown, Md., and to Cherry Run, W. Va. Several years ago surveys were made to connect the Western Maryland with the West Virginia Central by a line between Hagerstown and Cumberland. With the extensions completed another east and west system would be afforded from West Virginia and Maryland coal fields to tidewater. The Ohio river terminus would be at Parkersburg, W. Va.

President Loree of the Baltimore & Ohio and several other officials of this system recently made a tour of inspection of the West Virginia Central, and the trip has been connected with possible negotiations for its absorption by the Baltimore & Ohio.

Dothan, Hartford & Florida.

The Dothan, Hartford & Florida Railroad, which has been referred to in recent issues of the Manufacturers' Record as being promoted from the town of Dothan,

Ala., to St. Joseph, Fla., will probably be built within the next year, according to advices received from Pensacola. Messrs. Hardaway, Jones & Co. of Columbus, Ga., have secured a contract to construct the entire line, and it is announced that the railroad company has succeeded in floating bonds to the extent of $1,800,000 in aid of the project. The estimated length is 102 miles, passing through Henry and Geneva counties, Alabama, and Washington, Jackson and Franklin counties, Florida. At St. Joseph it is stated that a depth of twenty-five to thirty-five feet of water can be easily secured. The right of way is through tracts of pine timber, and the country it traverses is noted for its agricultural resources. J. P. Pelham of Dothan, president of the company, has been one of the principal promoters of the enterprise. At Dothan connection is made with both the Central of Georgia and the Plant systems.

Birmingham to the Atlantic.

The Waycross Air Line, now being completed between Waycross and Cordele, Ga., is to be expanded into one of the most important independent lines in the South as a result of the action of the stockholders of the company. Its title is taken from its route, which forms an air line between Waycross and Fitzgerald, to which point it is in operation at present. It is proposed to extend it west from Cordele to Birmingham, an estimated distance of 190 miles, and southwest to some port of the Georgia coast, probably Brunswick, forming a new route between the Alabama mineral district and the seaport referred to. The present mileage operated is seventy-one. The stockholders of the company have voted to place the capital at $7,000,000 and to change the name to the Atlantic & Birmingham Railroad Co. At the head of the corporation is Mr. W. G. Raoul, well known in connection with a number of Southern enterprises, and who has been an active promoter of railroads in Mexico.

Sporting in the South.

The Southern Railway Co. has issued a description of hunting and fishing in the South, which holds the attention of the reader from the first to the last page. It has the flavor of woods and streams, and will especially interest the sportsman by reason of the information it contains about the hunting and fishing grounds, as well as the remarkably good illustrations, many of which are taken from photographs. The animal pictures especially are of a very high order. The book is published by the passenger department of the company, and to Mr. S. H. Hardwick, general passenger agent, is due the credit for its high standard.

President Fish on the Situation.

In a recent interview relative to the general railroad situation, President Stuyvesant Fish of the Illinois Central is quoted as follows:

"There are reasons why railroad earnings should continue good. Of course, it is impossible to say whether they will show an increase for the next year. A limit must be reached some time, for it is impossible for railroads to go on making big increases upon big increases. Owing to the failure of the corn crop in the West, there is bound to be some falling off. In general, however, I view the situation as hopeful."

A 40-Mile Project.

The Manufacturers' Record is officially informed that the Bartow & Plant City Railroad Co. proposes building between these towns, an estimated distance of forty miles, with a branch to Fort Meade, in Polk county. The company announces that it will receive a grant of 3840 acres of lands for each mile constructed. The route is through one of the principal phosphate-mining districts, while Bartow is also a shipping point for vegetables and fruits. At Plant City a connection will be made with the Seaboard Air Line and the Plant system. The railroad company has secured a charter, and preliminary surveys of the route have already been made. Among the promoters of the enterprise are Warren Tyler of Bartow and George E. Simpson. The company is capitalized at $500,000.

Mr. Wood Elected President.

The American Association of General Passenger and Ticket Agents at its meeting at Asheville, N. C., elected as president Mr. J. R. Wood, passenger agent of the Pennsylvania Railroad; as vice-president Mr. John Sebastian, general passenger agent of the Rock Island system, and as secretary Mr. A. W. Smith of Cleveland. During the stay at Asheville the members of the association were guests of the Southern Railway Co., and showed their appreciation of the many courtesies extended them by tendering the company a vote of thanks.

New Southwestern Project.

Mr. Breckenridge Jones of St. Louis, president of the Blackwell, Enid & Southwestern Railroad, under construction from Blackwell, Okla., to Vernon, Texas, is authority for the statement that the road will be built to its southern terminus as soon as possible by way of Arapahoe and Cordell. It has been constructed to a connection with the Choctaw system in Indian Territory, and is in operation a distance of ninety miles. Mr. Jones has made an examination of the route for a distance of 150 miles.

Louisville & Nashville Traffic.

Freight traffic upon the Louisville & Nashville system in Alabama has assumed such proportions that recently an average of seventy freight trains daily have been operated on the section between Birmingham and Montgomery during the twenty-four hours. According to the statement of one of the Louisville & Nashville officials, the volume of business is increasing rather than diminishing, and it is probable that several additional trains will be placed in service.

Busy Southern Industry.

The Richmond Locomotive Works has secured a contract to build a number of engines for the Atchison, Topeka & Santa Fe system, and has begun work upon the order. Other contracts which the company is filling include fifteen locomotives for the Richmond, Fredericksburg & Potomac, also an order for forty-two engines for the Wabash system. The company is operating its plant both day and night, and at present about 2000 men are employed.

Important Kentucky Road.

In a letter to the Manufacturers' Record Mr. E. W. Smith, president of the Paducah & Cairo Railroad Co., writes that surveys have been made and estimates of the cost given. It is intended to secure right of way between the terminal points at once, and to begin in a few months. The estimated length of the road is thirty-three miles, and it will be operated independently of any other system.

Union Depot at Augusta.

A dispatch from Augusta, Ga., is to the effect that negotiations have been concluded in the interest of the proposed union depot, and that the Georgia Railroad Co., in conection with representatives of the Seaboard Air Line, will purchase the proposed site. The structure will be one of the most elaborate in the South, and it is understood work will be commenced in the near future.

Officers Re-elected.

At the annual meeting of the stockholders of the Central of Georgia Railway Co. the present officers were re-elected. Mr. J. F. Hanson is chairman of the board of directors; Mr. John M. Egan, president of the company; Mr. E. E. Williams, secretary; Mr. T. M. Cunningham, treasurer, and Mr. Theodore D. Kline, general superintendent.

Railroad Notes.

The Richmond Traction Co. has secured twenty additional motor cars, which will be placed in service immediately.

The Nashville Street Railway Co. has contracted for twenty additional motor cars, which are to be delivered as soon as possible. They will be the largest of the kind yet used in the city, and include the latest improvements in car construction.

The Norfolk & Western Railroad Co. is constructing at its shops at Roanoke, Va., five consolidation engines for hauling freight trains, which will weigh eighty-four tons each and have cylinders 21x30 inches. The engines are being built under the supervision of the officials of the company.

It is announced that the company promoting the electric line between Washington and Baltimore has secured a site in the western suburbs of Baltimore for a storage-house for its motor cars. James L. Christy, Jr., of Washington, general manager of the company, purchased the property.

The State authorities have completed statistics showing the assessed valuation of the railroads in Georgia. The returns show an estimated increase of nearly $6,000,000 compared with the previous year, of which the Central of Georgia contributes $665,638 and the Southern $222,000.

The railroad between Miami and Afton, I. T., has been opened to train service. It is thirteen miles in length, and connects the St. Louis & San Francisco and its Kansas City, Fort Scott & Memphis division. The opening of the line was celebrated by exercises held at Miami, at which the Commercial Club of Kansas City was present.

The Young Men's Business Association has been organized at Winston-Salem, N. C., with W. C. Griffin, president; C. F. Tomlinson, vice-president, and W. M. Hendren, secretary-treasurer. The organization's purpose is to promote the industrial and general business advancement of "The Twin City" of North Carolina. Efforts will be made to locate manufactories.

The Norfolk & Atlantic Terminal Co. of Norfolk, Va., has placed another steamer on the route across Hampton Roads between the terminus of its electric railroad and Old Point Comfort. The vessel, which is named the Pokohonet, is 161 feet in length, and has a capacity for accommodating about 800 passengers.

The issue of $150,000 of income bonds of the Charleston Exposition has been taken by the banks and business men of Charleston. The exposition will open on December 1.

The sales in the Joplin (Mo.) district during the week ended October 19 were 10,518,330 pounds of zinc ore and 1,258,490 pounds of lead ore, valued in all at $160,749.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Chadwick Mills Completed.

Another modern plant of large size put its machinery in motion for the first time last week. It is the cotton factory of the Chadwick Manufacturing Co. at Charlotte, N. C., capitalized at $250,000 and operating 12,500 spindles and 240 looms. The plant will employ about 200 hands and manufacture convertible sheeting. The directors include Messrs. E. A. Smith, J. P. Wilson and H. C. Clarke of Charlotte, Capt. F. Dilling of Kings Mountain, Geo. H. Bain of New York and Louis Prengle of Baltimore. Mr. Smith is president.

The Cotton Movement.

In his report for October 18 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during forty-eight days of the present season was 1,804,703 bales, a decrease under the same period last year of 361,698 bales; the exports were 782,841 bales, a decrease of 184,679 bales; takings by Northern spinners 196,906 bales, an increase of 5036 bales; by Southern spinners 256,236 bales, an increase of 48,696 bales.

To Add 4000 Spindles.

One of the new mills is the Sanford Cotton Mills of Sanford, N. C., and it commenced operations early this year. The equipment is now 10,000 spindles and 256 looms, to which it has been decided to add 4000 spindles and fifty looms. Probably an expenditure of about $50,000 will be made for the additions and improvements. The required new machinery has been ordered.

Textile Notes.

The Commercial Club of Biloxi, Miss., is endeavoring to locate a woolen mill.

The Hatchie Manufacturing Co., reported incorporated last week for manufacturing woolen goods, is of Brownsville, Tenn. Capital stock is $12,000.

The fire that destroyed the Randleman (N. C.) Hosiery Mills, referred to last week, was caused by the explosion of a gasoline engine. The loss was over $20,000, and the plant will be rebuilt.

The Anniston (Ala.) Yarn Mills has been completed and is about to commence operations, the production to be hosiery yarns. The spindles number 5000, and the company is capitalized at $100,000.

The Elba (Ala.) Power Co. has been organized, with capital stock of $30,000, of which amount $25,000 has been subscribed. The purposes are to develop and utilize water-power, establish cotton factory, etc.

The Social Circle (Ga.) Cotton Mills is now completed, and will start operations with its 5000 spindles and 160 looms. The product will be Bedford cords and fancy cottons. Capitalization of the enterprise is $100,000.

Dixie Mills of Lenoir City, Tenn., has completed the erection of an addition to its building, and will order about thirty additional knitting machines to increase capacity 50 per cent.; 150 machines are now running.

Nashville (Tenn.) Woolen Mill Co. has completed the improvements that convert its plant from a jeans mill to a cassimere mill. The discarded looms numbered seventy-eight, and new looms to that extent were installed.

The Capelsie Cotton Mills at Troy, N. C., is now completed, and will start operations. This plant includes a building 80x210 feet, with 35x40-foot engine-room, and the machinery will include 2500 spindles. The company is capitalized at $50,000.

The Woodruff (S. C.) Cotton Mills is about completed, and will soon have its 10,000 spindles and 300 looms in operation. This $250,000 company has finished its building, and has the machinery in place with the exception of the steam plant.

The Lowe Manufacturing Co. and the Eastern Manufacturing Co., both building mills at Huntsville, Ala., contemplate doubling the equipments of their plants as at first planned. The decision of the companies to meet next month to act on proposed increase of capital was reported recently.

The Southern Hosiery Mills of New Berne, N. C., reported last week, acquires and will operate the Clermont Mills, owned until now by P. H. Pelletier of the new company. It is contemplated to expend at least $40,000 for improvements. Seventy-two knitting machines are now in position.

The Cooleemee Cotton Mills of Cooleemee, N. C., has completed the installation of 1200 looms, and will now manufacture high-grade brown sheetings and drills for export and domestic use. This mill is operating only about half of its full complement of spindles. The spindles will number 35,000 when all in place.

The Cherokee Falls Manufacturing Co., mentioned last week, is of Cherokee Falls, S. C., and the addition to its buildings is now in course of erection. This enlargement will provide room for 10,000 additional spindles, but further than this no information is ready for the public. The new building is to be three stories high, 100x104 feet, as was stated.

The improvements to the mill of the Norfolk (Va.) Silk Mill Co., mentioned last week, will include the installation of 125 more looms. This machinery has been ordered, and when in position will afford employment to 125 operatives, making the mill's full complement of hands number 400. The erection of another building is also contemplated.

The Bibb Manufacturing Co. of Macon, Ga., has tested a portion of the machinery in its recently-completed branch mill at Columbus, Ga. The entire proposed complement of 20,000 spindles and 600 looms will gradually be put in operation. High-grade yarns is to be the product. A 70x100-foot warehouse is being erected for the storage of manufactured goods.

The Graniteville (S. C.) Manufacturing Co. put in operation last week its No. 3 mill, which has been in course of construction for some months past. This addition includes a three-story brick structure 294 feet long, containing 15,500 spindles and 560 looms for the production of sheetings, and the amount expended for it is about $450,000. The company's complement is now 50,400 spindles and 1666 looms.

Smitherman Cotton Mills of Troy, N. C., confirms the report that it will install 100 looms. This machinery has been ordered, and when it is in position the company will manufacture cloth, four and one-half yards to the pound, 48x48 inches, thirty-six inches wide. Heretofore only spindles (3328) have been operating in the plant. The improvements will cost about $8000, and thirty-five more hands will be employed.

The machinery has commenced to arrive for doubling the Laurel (Miss.) Cotton Mills, several carload shipments being now at hand. The improvements will cost about $100,000, and are to increase the spindleage from 5000 to 10,000; the looms will increase from 160 to 320. The decision as to this enlargement was made several months ago, and announced in this department at the time.

Proceedings against the Tennille (Ga.) Cotton Mills have been ended, the creditors and bondholders agreeing to an issue of $65,000 in bonds and $7000 of preferred stock. The creditors accept the bonds in lieu of cash. This is one of the new plants of the past year, and it will at once resume operations, which were interrupted by the proceedings. The product is yarns, 4000 mule spindles being the equipment.

Montgomery Mills at Gainesville, Ga., is being pushed to completion rapidly. The buildings are already finished, and the machinery is being placed in position. This company expects to commence operations in January with 25,000 spindles, and after that will operate its looms, the latter to number 750. It will be recalled that the equipment of this plant will be the machinery of the Vesta Cotton Mills, formerly at Charleston, S. C.

Cottonseed-Oil Notes.

The McKinney Cottonseed Oil Co. of McKinney, Texas, sold last week 2000 bales of cotton at a price ranging from 7¾ to 8 cents per pound. The cotton will be shipped direct to Liverpool.

The Planters' Cotton Oil Co.'s new mill at Waxahachie, Texas, has been completed and the machinery all placed. The entire plant has cost $70,000, and while late getting started, will run during the full season, a stock of seed having been laid in. Beaumont oil will be used to run the machinery.

Exporters' quotations for cottonseed products on the 21st inst. at Galveston, Texas, were reported as follows: Cottonseed oil, prime crude, loose, f. o. b. Texas mills, October-November, 31½ to 32 cents, and prime refined, October-November, 36½ cents; prime cottonseed cake, October, $22.75 per short ton f. o. b. Galveston, and prime cottonseed meal, $23.50 for October-November; linters f. o. b., compressed Galveston, choice, 3⅝ cents; A, 3¼ cents, and B, 2⅞ cents.

Mr. F. P. Pyemont of the firm of Taylor, Pyemont & Co., cottonseed-product merchants of Liverpool, England, visited Galveston, Texas, last week for the purpose of completing arrangements for representation in Galveston so as to enable him to do business through that port. Mr. E. H. Young has been appointed agent for the firm in Texas. It is stated that Mr. Pyemont's visit will result in an increased business in cottonseed products being done through the port of Galveston.

The following were the official quotations on cottonseed and cottonseed products as posted at the New Orleans Cotton Exchange on the 22d inst.: Prime refined oil in barrels, 37 cents per gallon; off refined oil in barrels, 36 cents per gallon; prime crude oil, loose, 31½ cents per gallon; off do., 30½ cents per gallon; prime cottonseed cake, $25 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, $24.75 per ton of 2240 pounds; off do., nominal; soap stock, loose, 1.15 cents per pound; linters, per pound, choice, nominal; A, 3¼ cents; B, 3 cents; C, 2¾ cents; cottonseed in sacks delivered in New Orleans, $14 per ton of 2000 pounds; in bulk delivered in New Orleans, $13 per ton of 2000 pounds.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., October 23.

Transactions in phosphate rock in the local market have been larger during the past week, and, as in other fertilizer ingredients, considerable improvement is noted. Tennessee rock is in fair demand, and sales of about 15,000 tons have been made during the past thirty days. Florida rock is being inquired for, and several cargoes are due to arrive before the close of this month. South Carolina rock is also in favor with manufacturers of fertilizer. The phosphate charters reported last week were as follows: Steamer James Turpie from a Southern port to United Kingdom or Continent on private terms, October; British bark St. Peter, 561 tons, from Grand Conetable Island to New York on private terms; schooner John E. Devlin, 1011 tons, from Port Tampa to Philadelphia at $2; British steamer Ixia, 1254 tons, from a Southern port to the United Kingdom or Continent on private terms, and schooner The Josephine, 563 tons, from Port Royal to Baltimore at $2. From mining districts in the South favorable advices are being received, and the market generally is in good shape. Mining interests in South Carolina are developing a fair output, and river rock is held at the usual figures, with the foreign inquiry improving and the domestic demand of moderate proportions. In the Florida phosphate field mining is being pushed with more or less enterprise, and both in the hard rock and pebble sections considerable rock is going forward to the ports. Shipments from all the ports will likely exceed those of September. The phosphate market at Mt. Pleasant, Tenn., is very steady, with a good domestic and foreign inquiry. Prices, both in domestic and foreign rock, are generally well maintained.

Fertilizer Ingredients.

The market for ammoniates has ruled fairly active, with a good demand from Southern and Eastern sources. The six months' contracts are still on the market, several selling during the past week on a basis of $18 to $18.50 f. o. b. Chicago, and are held at even higher figures. Sulphate of ammonia is steady. Nitrate of soda is fairly held at quotations.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	$2 72½@ 2 75
Nitrate of soda, spot Balto	1 90 @ 1 92½
Blood	2 27½@ 2 30
Azotine (beef)	2 30 @ —
Azotine (pork)	2 30 @ —
Tankage (concentrated)	2 17½@ 2 20
Tankage (9 and 30)	2 20@ 2 25 & 10
Tankage (7 and 30)	20 00 @20 50
Fish (dry)	26 00 @27 00

Phosphate and Fertilizer Notes.

The Aiken Kaolin Co. of Aiken, S. C., has been chartered, with a capital stock of $50,000. The corporators are J. B. McMillan of Graniteville and F. B. Henderson of Aiken.

It is stated that the Central Phosphate Co. at Mt. Pleasant, Tenn., has sold 25,000 tons of domestic phosphate rock, to be delivered in the next twelve months, besides large lots for export.

The schooner Anna L. Mulford cleared last week from Charleston, S. C., with 805 tons of phosphate rock for Barren Island. The total shipments for the week ending October 18 amounted to 1927 tons, against 4974 tons last year.

The Fairfield Oil & Fertilizer Co. of Winnsboro, S. C., has been sold to the Virginia-Carolina Chemical Co. of Richmond, Va. The plant includes a roller mill. The price paid is said to be $38,000. Mr. S. D. Dunn will manage the company's plant.

The shipments of high-grade Florida phosphate rock from the port of Savannah, Ga., last week were reported as follows: Steamship Celtic for Bremen with 2768 tons, steamship Tynefield for Havre and Hamburg with 2924 tons for the latter port, and steamship Jupiter for Bremen with 3872 tons, making a total of 9564 tons.

It is stated that Jacksonville, Fla., is to have a fertilizer manufacturing plant which is to be one of the largest in the South, exclusive of Baltimore. The plant will be known as the Armour Fertilizer Works of Jacksonville, Fla., and will be owned and operated by Armour & Co. of Chicago, Ill. The works, which will throughout be operated by electric motive power, will give employment to hundreds of men the year round. It is understood that all arrangements for the conduct of this business have been considered and completed, the plans drawn for the buildings and the machinery ordered. The works will cover an area of 105 feet by 300 feet, and the plant will be strictly modern in its minutest details. The building of the fertilizer works will begin immediately, and the contract calls for completion by December 10. The plant will be under the direction and supervision of the management of Armour & Co.'s branch at Jacksonville.

The Federal Chemical Co. was organized last week at Louisville, Ky., with a capital of $3,000,000. The company is said to be a consolidation of the Tennessee Phosphate Co. of the Mt. Pleasant district in Tennessee, the Globe Fertilizer Co. and the Fox Chemical Co. of Louisville. The capital stock of $3,000,000 is divided equally into 6 per cent. cumulative preferred stock and 8 per cent. common stock, all of which has been subscribed. The directors of the company are John M. Atherton, George Braden, John J. Harbison, John J. Helm, J. B. Speed, C. E. Claggett, Charles T. Ballard, Samuel A. Culbertson, Oscar Fenley, Attilla Cox and J. D. Stewart. It is stated that George Braden will likely be made president of the company, and J. D. Stewart, vice-president and treasurer. The entire property of the Tennessee Phosphate Co. at Mt. Pleasant, consisting of about 1200 acres of phosphate land, will be turned over; also the complete plant for the manufacture of acid phosphate and fertilizer owned jointly by the Globe Fertilizer Co. and the Fox Chemical Co. of Louisville. It is proposed to establish other factories for the manufacture of sulphuric acid phosphate and with mills, mixers and screens for largely-increased production of finished fertilizer.

The introduction of oil as fuel on steamers plying upon the Mississippi river is announced. A large steam yacht owned by Russell E. Gardner of St. Louis is to be fitted with apparatus for burning oil, and it is understood that several other boats will also be equipped as soon as the necessary changes can be made.

Among the important items in the estimates for the navy during the year ending June 30, 1903, is one calling for a plant to house and store torpedo-boats at Pensacola, Fla. An appropriation of $650,000 will be asked for the construction of this plant.

It is announced that Mr. E. C. P. Hambley, superintendent of the Whitney Reduction Co.'s works at Gold Hill, N. C., will entertain there for ten days in November a party of capitalists from Pittsburg and New York.

The Heywood Oil Co. of Beaumont, Texas, declared last week a dividend of 4 per cent. on the earnings of the past three months.

MECHANICAL.

Perfection Bottle Soaking and Sterilizing Apparatus.

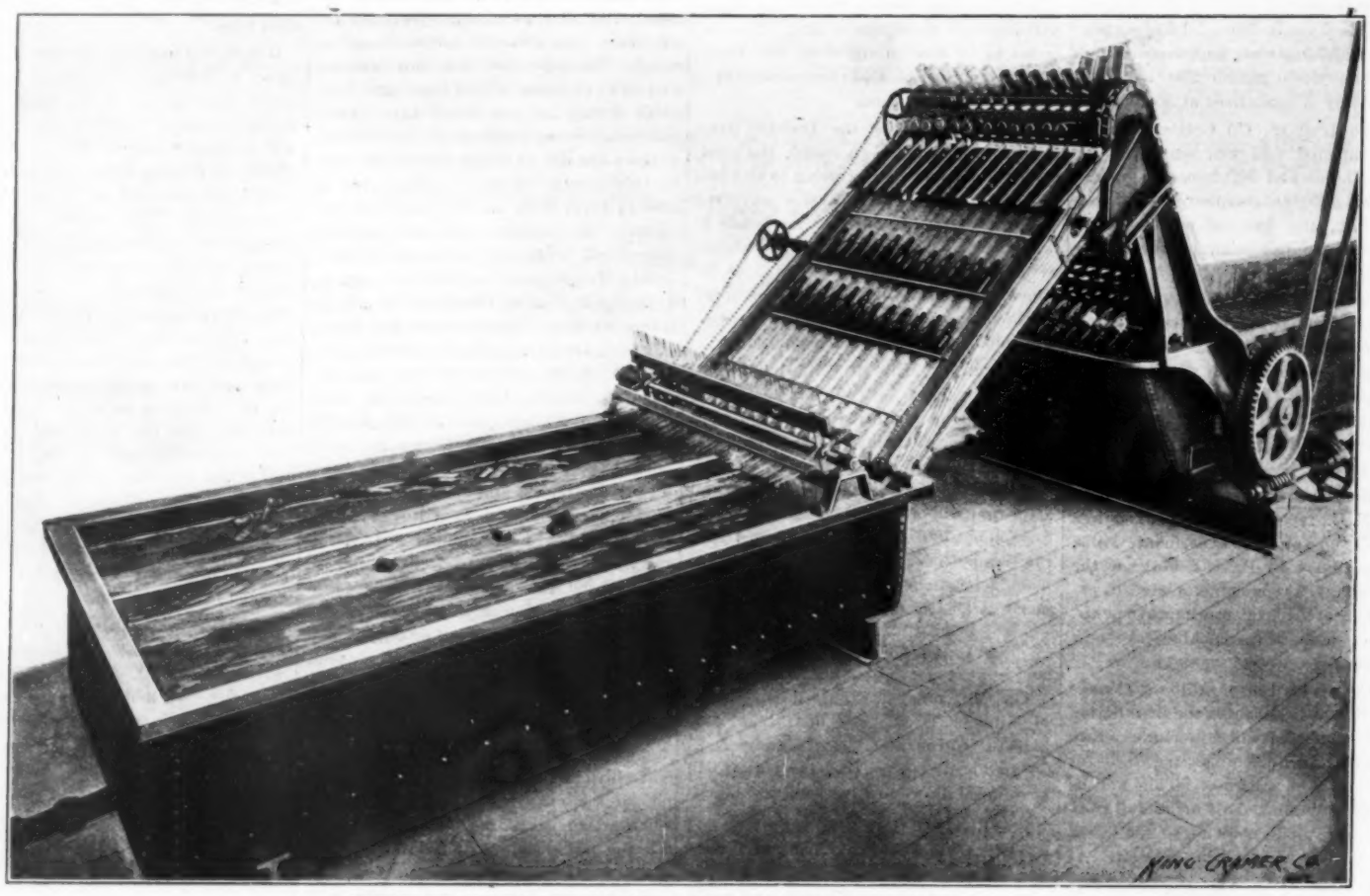
In placing bottled beer upon the market it is the aim of the brewer to put it before the public in presentable form. The label, cork, stopper or seal should be attractive, and the contents of the bottle absolutely clear, of desirable color and without a trace of sediment or adherents to inside of bottles.

The "Perfection" apparatus manufactured by the Vilter Manufacturing Co., 832 Clinton street, Milwaukee, Wis., has the merit of being a machine that will remove every bit of foreign matter adhering to the bottles quickly and without great expense. The machine is automatic in every detail, requiring the labor of but one man or boy. The breakage of bottles is reduced to a minimum, and the tinfoil and labels are entirely removed. The work performed throughout the machine is practically perfect. Each bottle that is fed to the apparatus receives a 20-minute continuous soaking, traveling twice the length of the tank.

The machine is not an experiment, having been in operation for two years with the best results, and the device is covered by United States letters patent. The bottles are automatically drained immediately after leaving the solution, and are perfectly dry, free from labels and tinfoil when reaching the point to be released. The release of the bottles is also automatic, the bottles being allowed to slide slowly to the conveyor, which carries them to the washing tank.

The conveying apparatus is so arranged that each lot of bottles released is cared for separately, not allowing two or more bottles to come in contact with one another. In this way they are slowly conveyed to the wash tank, remaining separate, entering the tank, until forwarded to the washing tank. If the operator desires to continue the soaking, by simply throwing a lever he allows the bottles to continue on their downward course without being released.

The power required for the largest machine is only from one to two horse-power. The tank is made in seven different sizes, to suit the floor space available. The soaking tank of the largest machine is 30 feet long, and of the smallest 18 feet long. The machines are built for capacities of 36,000, 33,800, 31 600, 29,500, 27,300, 25,200 and 23,000 bottles daily capacity.



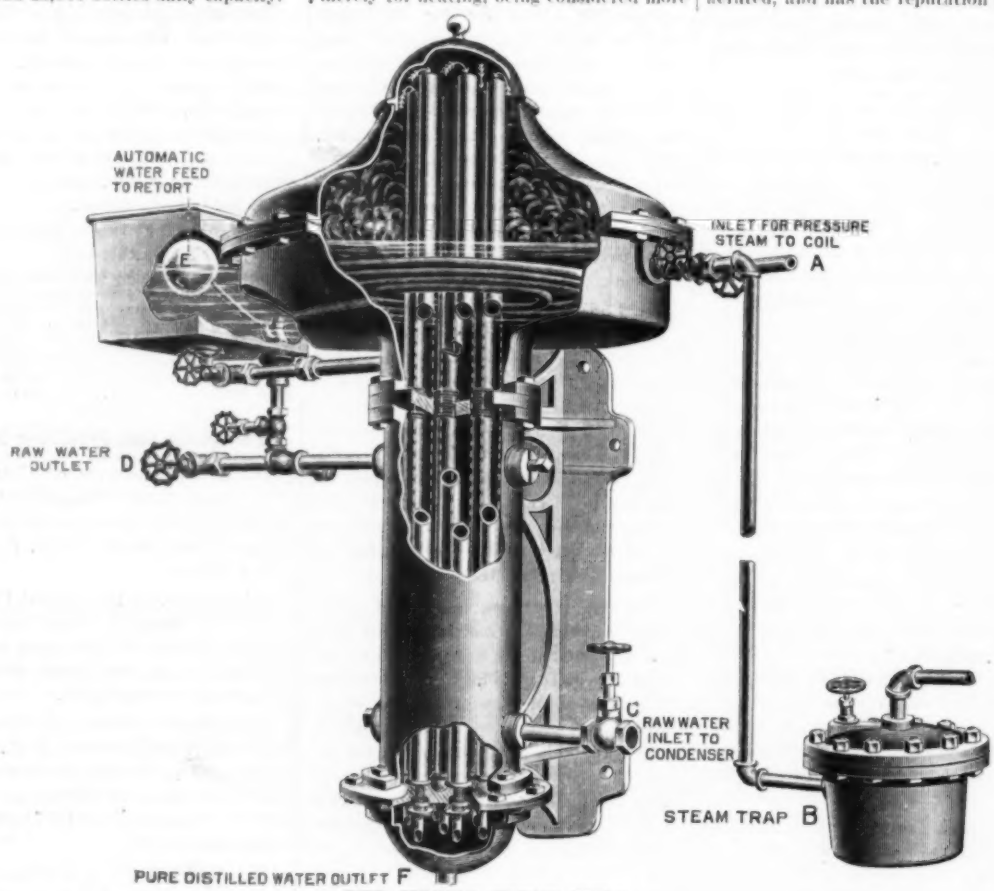
"PERFECTION" BOTTLE SOAKING AND STERILIZING APPARATUS.

Jewell Steam Still.

The apparatus illustrated in the accompanying cut is the Jewell Steam Still, which has attracted much attention among those who have used it on account of its combination of advantages. It is manufactured in capacities ranging from five to forty gallons per hour, based upon a steam pressure of forty to eighty pounds. The still requires only a one-half-inch steam-pipe connection, and the steam is used merely for heating, being considered more economical than gas for this purpose.

The condensing chamber is made to withstand a water pressure of 100 pounds, so that the water for condensing need not be wasted, but is discharged into a tank at a greater elevation than the still itself.

Some of the uses of the Jewell Still are in hospitals, for domestic purposes for supplying pure drinking water, as well as for manufacturing establishments and chemical laboratories. The apparatus furnishes the distilled water cold and aerated, and has the reputation of giving perfect satisfaction. Anyone interested can obtain complete particulars by addressing Ira Hestre Jewell, Marquette Building, Chicago, Ill.



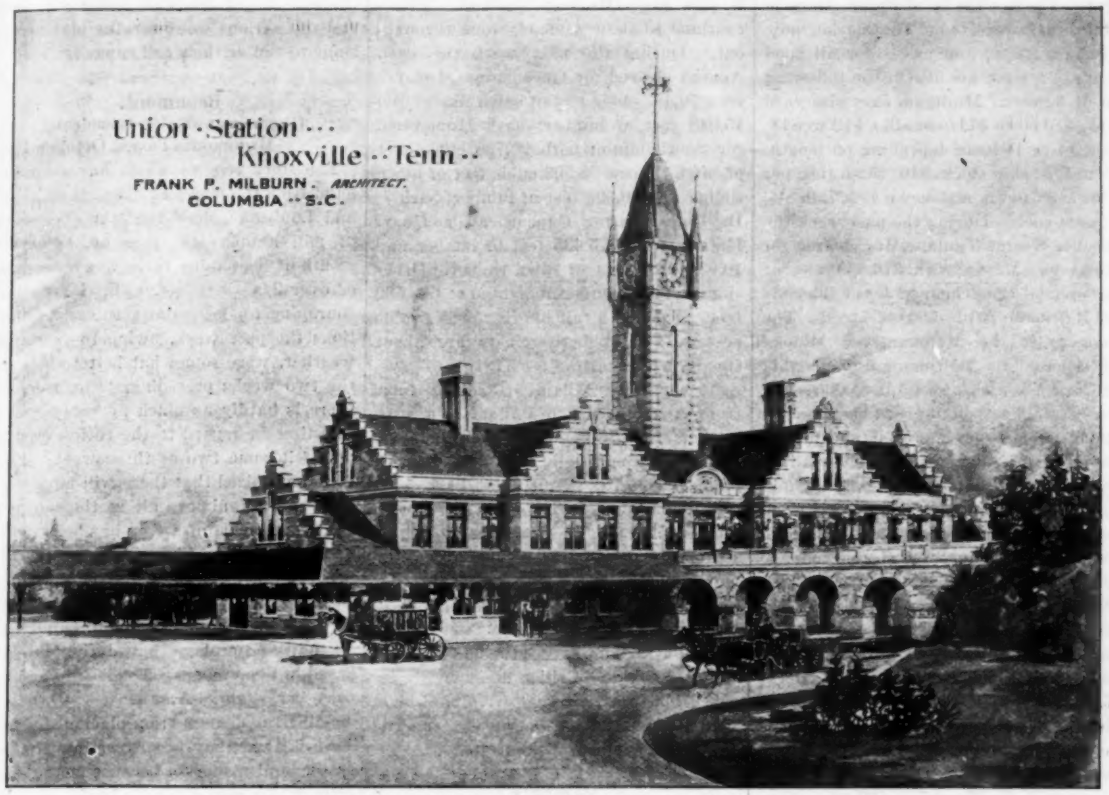
THE JEWELL STEAM STILL.

A Model Union Passenger Station.

The cut herewith is a correct reproduction of the new passenger station that will be erected at Knoxville, Tenn. Mr. Frank P. Milburn of Columbia, S. C., is the architect, and Mr. Nicholas Ittner of Atlanta, Ga., has the contract. Work has begun on the structure, which will be 53x215 feet, with two stories and basement and clock tower in the center. The principal entrance will be on Depot street, in the center of the building, over an arched viaduct. This will allow passengers to enter the general waiting rooms on this level, and provides for a carriage driveway which will deliver the passengers on the lower floor underneath the viaduct. The building will be located facing Depot street, between the Gay street bridge and Crozier street. The front will be about seventy-five feet from the sidewalk line, and sheds will be erected on the south sides which will protect the pasengers from the weather. The first floor provides for baggage, express, mail, news company, telegraph office and dining-room. The last named will be elegantly finished with pilastered walls, beam ceilings, and will have all modern conveniences.

The second floor provides for two large waiting rooms, with lofty ceilings, having pilastered walls and beam ceilings; between these two rooms the public will enter. Opposite the main entrance between the waiting rooms will be located the ticket office. On each end of the general waiting room are located the ladies' parlor and smoking rooms, with toilets for each. The exterior will be gray salt-and-pepper brick, trimmed with Knoxville marble. The floors and toilets are to be marble, the whole to have natural wood finish inside, with steam heat.

This will be one of the handsomest and best-arranged passenger stations in the South. It is one of many improvements that are being made by the management of the Southern Railway Co. along its route, and shows conclusively that the officials at the head of this great system of railways are keeping abreast of the times.



NEW PASSENGER STATION TO BE ERECTED AT KNOXVILLE, TENN.

A New Six-Saw Lath Mill.

When a large output of laths is desired the manufacturer in nine cases out of ten finds that he needs a large, strong, heavy mill, one that will do any work demanded of it and be comparatively inexpensive. Such a machine is shown in the cut that illustrates this article. The frame is very heavy and rigid, and every part of the machine is made of the best material, and is proportionately strong and durable. The arbor is one and on-half inches in diameter, and carries 12-inch or 14-inch saws. It is made of the best machinery steel, as are all shafts and feed rolls. The feed is a variable friction one, enabling the operator to change it to suit stock to be sawed, thus getting the maximum capacity of the machine. All of the feed rolls are power-driven. The bolts have an outside support, the table being extended and hinged. When it is desired to remove the saws from the arbor, the section of table next the saw can be swung down and dropped out of the way by a very simple device, and the saws easily removed.

There are many other valuable features, which are fully described in the new illustrated catalogue "A" just issued by the manufacturers of this machine, Wm. E. Hill & Co., North Park street, Kalamazoo, Mich., which will be sent free on request. In writing please mention Manufacturers' Record.

SIT-DOWN BAND POLISHING MACHINE.

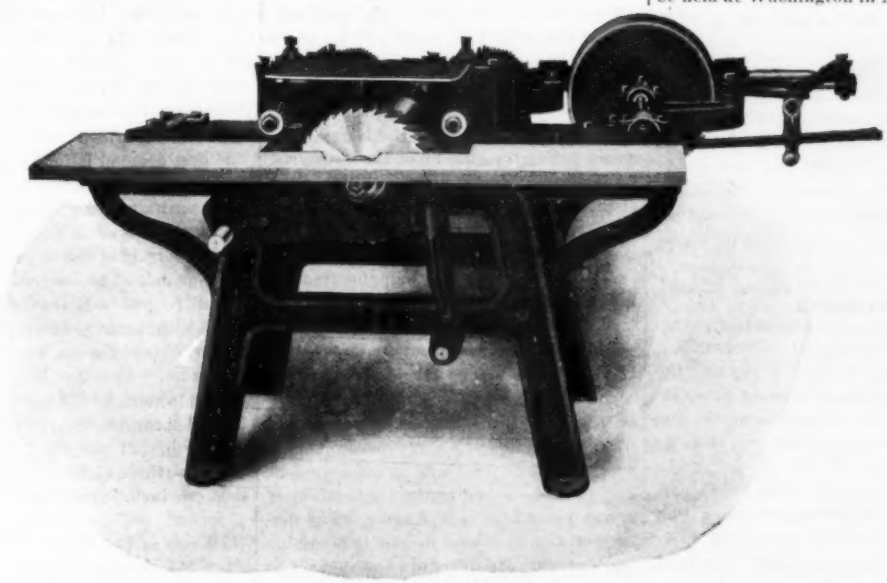
Sit-Down Besly Band Polishing Machine.

Illustrated herewith is a new Sit-Down Band Polishing Machine, just being put on the market by Charles H. Besly & Co., Chicago. This form of stand is very desirable, as it permits the operator to be seated while at work. The Besly Band Wheels recommended to be used on this machine are made of semi-steel castings, and when an elastic surface is required they are covered with felt. The emery or other abrasive material is applied to the wheel on a cloth band, which may be tightened firmly around the wheel. To reset the wheel or change the grade of emery it is necessary only to remove the band and replace it with another—an operation requiring only one or two minutes of time.

One of these wheels will take the place and do the work of a large number of polishing wheels. The wheels, when used with the Besly emery bands, are always balanced and ready for use. This machine is suitable for shops where skilled polishers are not employed, as well as in those employing skilled labor. An ordinary shop boy with a little practice can do the work of a skilled polisher.

The Sit-Down Pattern Band Grinders are made so that a single Besly Band Wheel can be used, or with double spindle, so that two band wheels may be used, or a band wheel at one end and a regular buff or emery wheel at the other end of spindle. Besly Band Wheels are made with cushioned or with hard finish, whichever may be desired. Circulars giving full particulars of Besly Band Grinders or Gardner Grinders will be mailed free upon application.

A national reciprocity convention will be held at Washington in November under the auspices of the National Manufacturers' Association.



NEW SIX-SAW LATH MILL.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., October 23.

The week under review in nearly all departments of the local lumber market has shown a good average volume of business, and the demand from points beyond the State continues good. Northern and Eastern orders have been more numerous, and the outlook is favorable for a substantial trade during November. Of the various commercial woods traded in, North Carolina pine still shows a remarkable degree of activity, with a firmer tone throughout the list of values. Stocks at milling points are below the normal, and in some cases badly assorted, rendering the filling of certain orders difficult. Mills, however, are working at their full capacity, and have all the orders they can attend to and warrant prompt shipment. The movement in Georgia pine is fair, with liberal receipts, and prices about steady. White pine is in good demand, with stocks fairly well assorted and prices unchanged. There is an improvement in cypress lumber, which is selling readily at quotations. Poplar is still occupying a prominent place, and is firm, with an advancing tendency, with a good domestic and foreign inquiry. Hardwoods generally are all moving more freely, the demand from out-of-town buyers being better than usual. The foreign export business still continues of narrow proportions, and no decided improvement is notable. The foreign market at latest reports showed a somewhat better tone.

Charleston.

[From our own Correspondent.]
Charleston, S. C., October 21.

During the present month the movement in lumber throughout this section has been better than usual, and mills adjacent to this port are all working up to their full capacity. There is a good demand from the usual sources, and values for the better grades of yellow pine and cypress are firm and hardening. At Georgetown the Atlantic Coast Lumber Co., the Gardner & Lacey Lumber Co. and others have all a good supply of orders, and are all running their mills on full time. Shipments have been larger than usual during the past week, and are reported as follows: Schooners J. H. Parker, 374,000 feet of lumber; Nelson E. Newberry, 540,000 feet; Thomas A. Ward, 514,000 feet, and by steamer 99,000 feet, all to New York; schooner Elizabeth A. Scribner, 275,000 feet of lumber; John H. May, 340,000 feet; Susie H. Davidson, 435,000 feet, and Mary S. Bradshaw, 375,000 feet. The schooner Frederick W. Day cleared for Boston with 518,820 feet, and Clyde Line steamer Seminole took out 54,239 feet. The schooner Annie C. Grace took out 366,000 feet of lumber for Philadelphia.

Savannah.

[From our own Correspondent.]
Savannah, Ga., October 21.

Business along the several lines of the local lumber market show signs of an increased volume as the months go by, and the general demand for material is of an average character for this period of the season. A number of vessels are in port loading, and charters reported show that arrivals during late October and early November will take out considerable lumber to Northern and Eastern points. The report that a new steamship line from this port to New York would be established has caused considerable discussion among local lumbermen during the past week. Lumbermen, as a rule, are favorable to the project if freight conditions are to be favorable, as the demand for lumber is regulated somewhat by the promptness in filling orders received. The market now is in fair shape, and prices for all good grades of lumber are firm at the following f. o. b. figures: Minimum easy size yard stock, $10.50 to $11; car sills, $12 to $13; stock 14 to 16-inch, depending on length, $15 to $16; ship stock, $16; sawn ties, per M feet, $8 to $9, and hewn ties 7x9x8½, 35 cents each. During the past week the schooner George Taulane, Jr., cleared for Fairhaven, Mass., with 376,609 feet of lumber, and the schooner Jessie Thomas for Baltimore with 500,000 feet. The steamers of the Merchants & Miners' Line cleared for Baltimore, Philadelphia and New York with over 1,000,000 feet of lumber. The volume of business at Brunswick is much improved, and for the present month shipments will show an increase over September. At all saw-mill sections in the interior the output is keeping well up, and orders are coming in freely. The offering of desirable tonnage is moderate, and rates about steady. The following charters were reported last week: Schooner Sedgewick, 473 tons, from Brunswick to New York with lumber at $5.50; schooner Howard B. Peck, 449 tons, from Brunswick to the Sound with lumber at $5.62½; schooner Blanche Hopkins, 505 tons, from Savannah to New York, two trips, with lumber at $6; schooner B. R. Woodside, 422 tons, from Savannah or Fernandina to Porto Rico with lumber at $7; schooner B. F. Poole, 1009 tons, from Brunswick to New York with ties at 14 cents; schooner F. C. Pendleton, 340 tons, from Brunswick to Bangor at $6.25; schooner Cella F., 353 tons, from Darien to New York with kiln-dried boards on private terms, and schooner Thomas A. Ward, 739 tons, from Savannah to New York or Perth Amboy with lumber at $5.75.

Mobile.

[From our own Correspondent.]
Mobile, Ala., October 21.

While the volume of trade in timber and lumber has not shown great expansion in this section during the past week, there is a good steady business in progress. The timber market is firm at 11½ to 12½ cents per cubic foot for sawn and 12 to 12½ cents for hewn. Stocks at Ferry Pass are now reduced to about 25,000 pieces, and receipts are light, while holders look for higher figures in the near future. Advices from Europe are more encouraging, and in reviewing the London market the London Timber Trades Journal of the 12th inst. says: "The wood market has already felt the influence of the decrease in the imports. The caution exercised in forward buying this year has, by relieving the strain of the heavy shipments during the autumn of 1900, restored confidence amongst importers all over the country. The improvement which is now displaying itself is entirely the result of the limitation of contracts made for autumn and fall delivery, and the trade is now in a position to grapple with the still large stock in hand through the dullest period of the year, with every prospect of the market being in a healthy condition when the active season again comes round. The pitch-pine market is slowly mending, and though cargo quotations are still low, they afford a slight improvement on the prices asked at the termination of the shipping season in August. The mahogany and hardwood market is becoming more steady, the demand is stronger, and trade shows an improving tendency, both in regard to enquiry and prices." The local lumber market is in fair shape, and mills are generally busy. The demand, however, has not increased to any extent, but later on business is expected to show more volume. Cuba and South America are making numerous inquiries, and there is also some Mexican demand. Prices continue to show a steady tone throughout. During the past week the bark Agatha cleared for Queenstown, Ireland, with 70,483 cubic feet of sawn timber and 15,948 feet of lumber; bark Homewood for Southampton with 20,753 cubic feet of sawn timber, 38,503 cubic feet of hewn timber and 30,590 feet of lumber; bark J. B. Demange for Caucarneau a Quay, France, with 175,435 feet of lumber and 10,051 cubic feet of sawn timber. Other shipments of lumber amounted to 662,582 feet. There is a fair offering of desirable vessels, and timber freights are about steady, with charters reported as follows: Schooner Henry Clausen, Jr., 476 tons, from Apalachicola to Philadelphia with lumber at $6.75; schooner Belle O'Neill, 394 tons, from Mobile to Baltimore with lumber at $6.75; a Norwegian bark, 1102 tons, from the Gulf to Buenos Ayres with lumber at $12.50, December; British steamer Comeric, 2594 tons, from the Gulf to the United Kingdom or Continent with timber at 90/; Norwegian bark Mark Twain, 705 tons, from Pensacola to United Kingdom or Continent with timber at 100/, and British steamer Simonside, 1956 tons, from Gulf to Continent with timber at 85/6, option Holland and United Kingdom at 87/6, October.

Memphis.

[From our own Correspondent.]
Memphis, Tenn., October 21.

A peculiar feature of the business in hardwood lumber circles in the Memphis district is the fact that buyers concentrate all their attention and orders on a few single items, to the comparative neglect of the remainder of the list. Plain white oak has become the whole thing when it comes to free and satisfactory movement. Domestic buyers are in the market actively for this wood, and exporters are taking a fair sprinkling of it. Quartered white is in better demand from all sources, though quartered red is as slow as anyone could imagine. The past week has witnessed a fair volume of business. There has been some improvement in the demand for gum, especially red gum without sap in the thinner grades, particularly three-eighths inch to three-quarters inch, with a fair sprinkling of one-inch stock. Most of this has gone forward to England. There has come a complete neglect of red gum 3x9 for paving purposes. Cypress continues active at full quotations, with the trade finding no difficulty whatever in disposing of all offerings. Ash is in moderate request in the higher grades and in dimension stock for shipment to South Africa and South America. Cottonwood is in better call from the Continent and from England. The best demand is for the higher grades. Stocks of most woods here are rather large, with the exception of the plain oaks, quartered white oak and cypress, the supply of everything else in the list exceeding the demand. The universal verdict with regard to prices is that they are ruling firm, with manufacturers showing little or no disposition to make concessions. Red gum, which has begun to move recently, is going at $25 per thousand f. o. b. Memphis for one inch, $23 for three-quarters inch, $21 for one-half inch and at $19 for three-eighths inch. Plain red oak, one inch, is moving at $29 to $30 per thousand, and plain white of the same thickness at $30 to $31. Quartered red is quotable at $40 to $41, and quartered white at $42 to $43 per thousand. The trade is showing little anxiety over the future of values, the prevailing sentiment being that prices will take care of themselves handsomely during the fall and winter months, and that they will advance along toward the beginning of the new year. Activity almost unparalleled is still the rule in all kinds of building woods, and the various woodworking plants continue to run at their full capacity.

Beaumont.

[From our own Correspondent.]
Beaumont, Texas, October 19.

The stock reports which have come to hand from the long-leaf districts of Texas and Louisiana show that the decreasing of mill lumber still goes on. For the month of September there was a decrease of over 2,000,000 feet. This is very encouraging to the manufacturers. Conditions the past week, owing to favorable weather, were somewhat better than for the two weeks preceding. Furthermore, there is hardly as much apprehension at this time in regard to the cotton crop as was felt some two or three weeks since. It is recognized that there will be a short crop, but in almost all sections of the State some part of a crop has been made, and the resultant high prices that will be secured for the staple will tend to average business up from all over the State. Probably more orders came to hand within the last ten days than during the last week in September, although the increase was but slight. Another factor that is holding the dealers from placing their orders is that they are expecting a much lower lumber market because of the short crop, which would usually be the case, but in the present instance they entirely overlook the balancing effect which the remarkably short stocks at the mills have had on the market. There is no question but what trade is much quieter than it was, but there will be no demoralization of prices this year. The mills can afford to stack their lumber, and will do so rather than sell at much below the prevailing figures. The principal orders that are coming to the mills just now call for the higher grades of lumber, such as flooring, ceiling, finishing, etc., which would show a tendency on the dealer's part to buy his common lumber from the small mill man, who is doubtless willing to sell a trifle below the market. The market is firm today at $14.50 for dimension on a common-point rate, $20 for flooring and $18.50 for 1x12. Some firms are strenuously maintaining their lists, which are higher than the figure quoted, and in some instances are securing their figures. There is a very excellent trade being had with Southern Louisiana points. This volume is constantly increasing, and at this time the Louisiana dealers are heavy buyers of lumber. The rice crop is having good weather for harvesting in that section. This trade takes principally No. 1 and No. 2 common grades, as the finer qualities of lumber used are furnished in cypress, which in that region is comparatively cheap. The railroad trade of the West is livening up very considerably, so far as this market is concerned. Quite a number of enquiries and orders have been lately received. For the greater part of the year the major portions of this business has been going to mills east of the Mississippi river, on account of the prices asked in this market being too high, according to the views of the respective purchasing agents. Either Mississippi mills have advanced or they cannot supply the material that is needed, for lately the business done with Western roads has been quite voluminous. The territory surrounding Lawton, O. T., is still using a great deal of material, and quite heavy shipments have been made to those towns in the last few weeks. The territory is new, and the settlers are anxious to get housed before the rigors of winter come. Other Western markets have been rather dull

during the past three weeks, and while there has been good enquiry for lumber, there has not been much trading. The export business is as dull as it has been during the entire year. One cargo for South America has been booked, which is the first South American business in some time. The business, such as it is, with continental ports is being mostly transacted with Mobile, Pascagoula, Ship Island and Pensacola, and the larger part of this is on old contracts. None of the exporters profess to be able to understand why business is as dull as it is, and there seems to be little prospect of any immediate improvement. The only export business which is in good shape at this time and desirable to the mill men is that with Mexico, where a good trade is being had, particularly so in regard to railroad material. There is a very firm demand for heart ties, stringers and all kinds of railroad timber. The same is true of mining timbers, which have been moving freely of late. The domestic demand for timber is unexcelled. The call for heart ties is very strong, enquiries for prices having recently been made for over half a million in the aggregate, but it is doubtful if any business has resulted on account of the mills' inability to handle the orders at this time because of other orders for similar material with which they are now engaged.

Lumber Notes.

The Croatan Lumber Co. of Washington, N. C., was chartered last week, with a capital stock of $10,000.

The Eddy Lake Cypress Co. of Horry county, South Carolina, has made application for an increase of its capital stock from $20,000 to $32,000.

Receipts of lumber last week at the port of New Orleans amounted to 2,063,000 feet, and for the season 24,013,296 feet, against 26,625,121 feet last year.

The Foreman Shingle Co. of Tennessee City, Tenn., has sold its plant to S. W. Taylor & Co., who are largely engaged in the stave trade at Tennessee City.

The Love-Boyd Lumber Co. of Kentucky has moved its large plant from that State to Poplar Log Cove, west of Huntsville. The capacity of the plant is 25,000 feet daily.

Messrs. Wm. E. Hughes and Herbert E. Gyles of 15 Savage street, Charleston, S. C., are desirous of receiving information concerning yellow-pine timber lands in South Carolina, Georgia and Florida.

Mr. James Ramsey, lumber agent of the Pullman Car Co., while in Mobile, Ala., last week purchased 2,000,000 feet of prime pine lumber for the construction of cars for the Eastern Illinois Railroad from M. L. Davis & Co. of Oak Grove, Ala.

The Fowler & Son Lumber Co. at Lennon, Fla., is now turning out some fine lumber from its extensive milling plant. Among its shipments last week was one stick of timber intended for a mast sixty-five feet long and forty inches thick at the base.

The Lutcher & Moore Lumber Co. at Orange, Texas, last week sawed up a stick of long-leaf pine that measured thirty-nine inches at the top of thirty feet. The one cut scaled 1550 feet board measure. Two other cuts thirty feet long from the same tree are in the boom.

The new furniture factories of the Davidson-Benedict Lumber Co. at Nashville, Tenn., are now being rapidly pushed to completion. The main building is to be of brick, and is 60x154 feet, and two stories in height. The other building is 48x96 feet. Cheap grades of furniture will be manufactured.

The building occupied by the Union Furniture Co. of New Orleans was destroyed by fire last week, together with all the stock contained in the building. The insurance on the stock is $18,000. The building was owned by Tulane University, and was insured for $25,000.

It is stated that J. X. Hill, agent for the Kanawha Land Association, closed a deal last week at Huntington, W. Va., with French capitalists for 110,000 acres of valuable coal and timber land in the upper Guyandotte valley. It is understood that the sale of these lands and immediate development will cause an outlay of $1,000,000.

The Kennedy & Morelock Stave Co., which has plants at Birmingham, Ala., and Wynne, Ark., closed a deal last week for property at Memphis, Tenn., on which will be erected a tight-stave plant within the next sixty days. The new concern will manufacture and finish tight staves and heading. It is capitalized at $50,000, employs fifty men, and will handle 1000 carloads of staves a year.

The Pittsburg Lumber Co. of Wilmington, N. C., has been chartered, with a capital stock of $10,000. The incorporators are William B. Hays and M. D. Hays of Pittsburg, Pa. The company purchased some time ago the valuable saw-mill plant owned by the C. W. Pike Lumber Co. of Wilmington. The plant will be enlarged to a capacity of 30,000 feet of lumber per day, and a sash, door and blind factory added.

The Virginia Land & Lumber Co. was chartered last week at Norfolk, Va., with a capital stock of $60,000. The officers of the company are: Edward Schilder of Chillicothe, Ohio, president; Frank Flee of Washington, D. C., vice-president; John Seip of Chillicothe, Ohio, treasurer; Milton P. Jones of Norfolk, secretary. These officers, with Joseph L. Schilder, James C. Gregg, David P. Jones and O. O. Jackson, are the directors.

Messrs. Lester Duryea, E. D. Silvera, W. B. Robinson, Jr., and W. T. Anderson, who recently located in Brunswick, Ga., coming to that city from Michigan, have organized the Empire Lumber & Investment Co. They have made extensive purchases of timber lands in Glynn and Wayne counties along the Brunswick & Birmingham Railroad. They will operate naval-stores plants, saw-mills, and locate new settlers. They are very much encouraged by the prospect for future business.

Shipments of lumber from Jacksonville, Fla., towards the close of last week became quite active, and the following vessels cleared with full cargoes: Schooner Nettie Chipman for Pawtucket, R. I., with 270,000 feet of lumber; schooner Longfellow for Fall River with 230,000 feet; the Aetna for New York with 260,000 feet, and schooner Robert A. Snyder for Newark, N. J., with 309,000 feet of lumber and 150,000 shingles. The Clyde Line steamers cleared for Philadelphia with 275,000 feet of lumber and 6000 bundles of shingles.

Mr. F. R. Lingham of Johannesburg, South Africa, representing G. F. Neame & Co., owning the harbor, landing, warehouse and railroad terminus at Delagoa, visited New Orleans last week. Mr. Lingham, it is stated, visits this country to arrange with Southern lumber companies to supply the lumber demand of the Transvaal and South Africa generally. Heretofore this company has been obtaining its lumber from Puget Sound, and also from Sweden and Norway, taking 150,000,000 feet a year. Recent shipments of lumber and timber from Pensacola have favorably impressed South African dealers.

The Lumbermen's Association of the South was permanently organized at New Orleans on the 18th inst., and the following officers elected: Carl F. Drake of the Drake Lumber Co. of Austin, Texas, president; L. C. Allen of the Allen & Curry Manufacturing Co. of Shreveport, La., vice-president; W. G. Harlow of the Keystone Lumber Co. of Yazoo City, Miss., secretary and treasurer. The membership of the association includes the wholesale and retail lumber dealers and lumber manufacturers of the Southern States, the object of the association being, it is stated, for the encouragement of State associations in the South and for the purpose of encouraging and maintaining the business ethics and relations which should exist between the manufacturing and business branches of the lumber trade. The following are the members of the executive committee, as announced: Tennessee—A. M. Stevens, Dyersburg; J. H. Stribling, Lawrenceburg. Virginia—The Cummer Company, Norfolk; W. S. Gunn, Richmond. Mississippi—H. N. Alexander, Greenville; C. S. Butterfield, Norfield. Texas—J. D. Leeper, Gainesville; J. M. Rockwall, Houston. Louisiana—R. H. Downman, New Orleans; L. C. Allen, Shreveport. Alabama—Sample Lumber Co., Birmingham; Yellow Pine Lumber Co., Mobile. Arkansas—Fordyce Lumber Co., J. T. Rutherford, Pine Bluff. Florida—Beach, Rogers & Co., De Funiak Springs; Fred Larkins, White Springs. Georgia—Colcord-Williams Lumber Co., Atlanta; H. H. Tift, Tifton. Kentucky—Burt & Brabb Lumber Co., Ford; Stone Veith, Weirport, Ky. North Carolina—J. Sam Wright, Boardman, N. C.; J. H. Wearn & Co., Charlotte. South Carolina—Garden & Lucey Lumber Co., Georgetown; B. I. Simmons, Charleston.

TRADE NOTES.

From Virginia.—The Peck-Hammond Company, Cincinnati, Ohio, has been awarded the contract for heating the High Street Baptist Church at Charlottesville, Va.

Caution to Foundrymen.—The Millett Core Oven Co. of Brightwood, Mass., announces that an oven is being offered the trade which it claims is an infringement upon the Millett patent core oven, and cautions foundrymen against using the type referred to.

Cleveland Office for the S. K. C. System.—The Stanley Electric Manufacturing Co. has opened offices in the New England Building, 129-131 Euclid avenue, Cleveland, Ohio. Mr. Alexander T. Moore, formerly of Pittsburg, has been appointed district manager.

Recognized Its Value.—The American Steam Gauge & Valve Manufacturing Co., Boston, Mass., has been awarded the gold medal at the Pan-American Exposition on gauges, pop valves, indicators and engineering specialties, an award covering its whole exhibit.

Well Located.—The Hazelton Boiler Co. has removed its main office from 120 Liberty street, New York, to the works at Rutherford, N. J. Rutherford is only nine miles from New York, and has excellent rail connection with the metropolis by way of the Erie Railroad.

A Western Branch.—The L. S. Starrett Co. of Athol, Mass., well known as the manufacturer of the Starrett tools, has opened a Western branch at 15 South Canal street, Chicago, where a line of its goods will be kept in stock. Mr. A. P. Fletcher has been appointed general manager.

Still They Come.—Another proof that Myers' goods are good goods is shown by the fact that Messrs. F. E. Myers & Bro. of Ashland, Ohio, secured a gold medal at the Pan-American Exposition for the Myers pumps. The display of agricultural machinery made by this firm was one of the most attractive at Buffalo.

Gold Medal for Eureka Fire Hose.—The Eureka Fire Hose Co., 13 Barclay street, New York city, has been awarded a gold medal at the Pan-American Exposition covering its celebrated brands of fire hose, "Eureka," "Paragon" and "Red Cross," also for hydraulic hose for all purposes, linen hose and tubular fabrics. There is no question as to the popularity of the company's products, and the award will be recognized as one that is well deserved.

The Best Proof.—The International Silver Co. of Meriden, Conn., has recently given an order to the Sterling Blower & Pipe Manufacturing Co. of Hartford, Conn., for a 12-inch Sterling steam exhaust head. The company has been using a 10-inch head, which gave such satisfaction that it decided to have larger apparatus.

Secured a Medal.—The Coe Manufacturing Co. of Painesville, Ohio, was fortunate in securing a gold medal for its veneer cutting machine on exhibition at the Pan-American display. The award was made in recognition of the merits of the apparatus in question, which attracted much attention by the quality of its work.

From the Lakes to the Pacific.—Recent orders received by the Ball Engine Co. of Erie, Pa., are for the Pacific Coast Company of Seattle, Wash.; the Driskill Hotel of Austin, Texas; the Cleveland (Ohio) Macaroni Co., and the College of Physicians and Surgeons of Chicago. All of these orders are for engines for electric lighting.

A Large Order.—The Ingoldsby Automatic Car Co. of St. Louis has secured a large order from the Colorado & Southern Railroad Co., which comprises 400 standard-gauge dump cars to be used by the Colorado Company for its coal and ore service. Each of the cars is of 80,000 pounds capacity, and will be equipped with the Ingoldsby devices.

Attracted Attention.—Among the many attractive exhibits at the Pan-American Exposition was that of Messrs. Charles A. Schieren & Co. of 45-51 Ferry street and 78 Cliff street, New York. It consisted of an Oriental kiosk decorated with samples of leather belting showing the variety of these products made by Schieren & Co. The special exhibit consisted of a 72-inch three-ply leather belt 165 feet in length. The firm was awarded a gold medal for its leather belting and belt leather.

Experimental Engineering.—Prof. R. A. Smart has resigned his position in the department of experimental engineering of Purdue University at Lafayette, Ind., and connected himself with B. F. Sturtevant Co. of Boston, Mass., with whom he will become the head of a department of experimental engineering, which is being established for the purpose of investigating all problems relating to blower practice and of developing new and more efficient applications of the fan blower in all lines of industry.

To Steam Users.—Owners of steam-power plants are invited to send for the list just issued by S. L. Holt & Co., 67 Sudbury street, Boston, dealers in second-hand machinery. They offer for sale one second-hand Corliss engine, 1000 horse-power; one 500-horse-power engine, one 350-horse-power engine, one 200-horse-power engine, two 150-horse-power engines, two 100-horse-power engines, two 50-horse-power engines. The firm also has on hand for sale forty-seven second-hand engines, four to seventy-five horse-power, of various makes, and eighty-five throttle governor new engines from six to 125 horse-power.

An Important Industry.—The Spiral Riveted Tube Co. has recently been incorporated in New Jersey to manufacture spiral-riveted work, as well as sheet-iron work, brass and iron castings. The company has secured several very valuable patents, which will enable it to manufacture spiral-riveted pipe of a superior quality. Its plant is well located in Jersey City, and the necessary machinery will soon be installed. John A. Wilbur is president of the company; A. Howard Abendroth, formerly of the Abendroth & Root Manufacturing Co., is secretary, and Frederick W. Stapf, formerly with the same company, general superintendent. It will be noted that the officers are men who have a high reputation in their line of business.

A Thorough Test.—Ruberoid floor cloth, which was placed in the main corridor and stairways of the engineering building at the Paris Exposition, has been in use over three years, and today shows no signs of wear, although this portion of the exposition was visited by nearly everyone who was admitted. It is estimated that several millions of people have walked over the material since it was laid down over three years ago. The directors of the exposition have given the Standard Paint Co. of 100 William street, New York, the manufacturer of Ruberoid, a certificate showing their appreciation of its durable qualities. The company has also received several other testimonials from private French concerns who used the material.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Alabama.—Chartered: Ideal Generator Mentho-Formoline Co., with capital stock of $150,000, under Delaware laws.

Birmingham—Dynamite Factory.—The Birmingham Powder Co. has purchased site for $25,000, and will establish a plant to cost $50,000 for the manufacture of dynamite.

Birmingham—Brick, etc., Works.—W. P. Pinckard, reported recently as to establish fire-brick works, states that he is testing clay for fire-brick, tile and clay pipe, but has reached no decision in the matter.

Birmingham—Furniture Factory.—Lockwood Manufacturing Co., whose furniture factory was recently burned, will operate the plant in new building which company had about completed at time of fire; new building will also be occupied as box factory; machinery has been purchased.*

Elamville—Saw-mill.—J. W. Crew will rebuild his saw-mill recently burned, and may add small variety works.*

Elba—Water-power Development, etc.—Elba Power Co. has been incorporated, with capital stock of $30,000, for developing water-power, erecting cotton mill, etc.

Goldburg—Gold Mines.—G. B. Flint, local manager for Murphy & Co. of Anniston, Ala., and Goliah Riley will organize a $25,000 stock company for development of gold properties recently acquired at Goldburg.

Mobile—Oil Wells.—David S. Bauer, E. B. Eidson, W. R. Conan of Mobile, Samuel Marx, Charles Jacob, Daniel Greenwald of New York and others have incorporated the Bay City Oil & Development Co., with capital stock of $100,000, for development of oil lands in Baldwin county.

Montgomery—Ice Plant.—Alabama Hardwood Manufacturing Co. contemplates installing an ice plant.*

ARKANSAS.

Ledwidge—Mercantile.—Chartered: Harris Mercantile Co., with capital stock of $10,000, by John S. Harris and others.

Paragould—Refrigerating Plant.—Crystal Ice Co. has contracted for erection of a $30,000 refrigerating plant. Laufkoetter & Bendit of St. Louis, Mo., will be the engineers.

Russell—Stone Company.—Russell Stone Co. has been incorporated, with capital stock of $4000; W. H. Burns, president; E. R. Beame, vice-president, and W. A. Tucker, secretary and treasurer.

Spielerville—Mercantile.—Chartered: Spielerville Mercantile Co., with capital stock of $10,000, by Emil Spieler (president) and others.

FLORIDA.

Bartow—Oil Wells, etc.—South Florida Oil & Mineral Co., with capital stock of $150,000, has been incorporated by Albert F. Dewey, C. G. Davis and W. W. Clark.

Jacksonville—Fish and Produce Company. Florida Fish & Produce Co. has been incorporated, with capital stock of $50,000, by W. H. Adams, Hilton Meekins, L. F. Blackson and others.

Jacksonville—Fertilizer Works.—Armour & Co. of Chicago have completed arrangements for the esetablishment of large fertilizer works in Jacksonville, to be operated as the Armour Fertilizer Works. It is said that plans and specifications for buildings have been made and the machinery ordered.

Kendrick—Lime-kiln.—Standard Lime Co. will erect another kiln.

Laurel Hill—Mercantile.—Chartered: Finlayson Mercantile Co., with capital stock of $5000, by D. T. Finlayson and others.

Laurel Hill—Sugar Mill, etc.—M. A. Carlson, A. M. Soderlind and Fred Reynolds of Chicago, Ill., reported last week as to erect sugar mill, etc., paid $7500 for about 1500 acres of land near Laurel Hill. One hundred acres will be planted in sugar-cane next spring, and increased thereafter to the entire tract; syrup mill will be erected.

Marianna—Telephone System.—Marianna Telephone Co., with capital stock of $5000, has been incorporated to operate a telephone exchange.

Neptune—Lumber and Shingle Mill.—N. S. Hunt will rebuild his mill, lately reported burned. Plant will include saw, shingle, crate and planing mill combined.*

Tampa—Water-works.—Plans and specifications for city's proposed water-works system have been completed by the council. Address "The Mayor."

West Palm Beach—Publishing.—Chartered: Dean Publishing Co., with capital stock of $15,000, by S. Bobo Dean, Geo. G. Currie and George W. Potter.

GEORGIA.

Atlanta—Lumber Company.—Acme Lumber Co. has been incorporated, with capital stock of $15,000, with privilege of increasing to $100,000, by Frank Eastman and W. S. Martin.

Atlanta—Iron Mining and Manufacturing.—It is stated that New York capitalists will acquire and develop thoroughly the iron interests of North Georgia, constructing at the start three 100-ton iron furnaces. W. B. Lowe is interested.

Brunswick—Saw-mills, etc.—Lester Duryea, E. D. Silvera, W. B. Robinson, Jr., and W. T. Anderson of Michigan have organized the Empire Lumber & Investment Co. for the development of extensive timber lands purchased in Glynn and Wayne counties; saw-mills and naval stores plant will be established.

Cedartown—Flour Mill.—T. L. & J. M. Aikins of Sylacauga, Ala., will erect a 75 to 100-barrel flour mill at Cedartown.

Columbus—Water-power Electrical Development.—George J. Baldwin of Savannah, Ga.; Stone & Webster of Boston, Mass., and other New England parties have bought control in the Chattahoochee Falls Co., which owns 1000 acres of land with 7000 feet of water frontage and a fall which will afford 14,000 horse-power. It is proposed to invest $1,000,000 in developing this power, transmitting it electrically and locating industries.

Dahlonega—Gold Mines.—J. M. Hutchins will develop gold mine, and is arranging for the equipment of a 20-stamp mill, as recently reported. Eighty tons of quartz ore will be reduced every twenty-four hours.*

Decatur—Chair Factory and Cannery.—Hunter Pope contemplates establishing chair factory and cannery.*

Forsyth—Laundry.—Steam laundry will be established. Address Samuel Rutherford.

Jasper—Iron Bridges.—County will construct three iron bridges to replace wooden structures now in use. Address "County Commissioners."

Quitman—Saw-mill, etc.—Oglesby & Bro. and C. E. Bridges have purchased 4500 acres of timber lands for $35,000, and will establish large mill for developing same. It was reported recently that Oglesby & Bro. had purchased timber properties and would incorporate company for developments.

Quitman—Broom Factory.—A. W. Green will establish broom factory, as recently reported, with capacity of fifty dozen per day, which will be increased later. Broom handles will also be manufactured in the near future.

KENTUCKY.

Ashland—Iron Mines.—Ashland Iron & Mining Co. has been incorporated, with capital stock of $600,000, by John F. Hager and others.

Bardwell—Flour Mill.—Stapp & Johnson will rebuild their flour mill recently burned.

Campbellsville—Flour Mill.—W. H. Speer contemplates installing rolls in a water-power burr mill.

Henderson—Mercantile.—Chartered: Rusk County Fruit & Vegetable Co., with capital stock of $10,000, by J. C. Hickey and others.

Louisville—Enameling Shop, etc.—McDonald & Sheblessly have made plans for brick warehouse and fireproof building for chemicals for Ahrens & Ott Manufacturing Co. and for enameling shop recently burned.

Louisville.—Federal Chemical Co. has been organized, with capital of $3,000,000, to acquire and continue the plants of the Globe Fertilizer Co. and Fox Chemical Co. of Louisville, Tennessee Phosphate Co. of Mt. Pleasant, Tenn., etc. It is proposed to establish factory for sulphuric acid phosphate, increase output of the fertilizer plants, etc., George Braden to be president, and J. D. Stewart, treasurer.

Manchester—Flour Mill.—J. R. Burchell will erect a 20 or 30-barrel roller flour mill.

Nicholasville—Electric-light Plant.—City will vote November 5 on issuance of $12,000 of bonds for erection of electric-light plant. Address "The Mayor."

Owensboro—Machine Shops and Foundry.—Lees Machine Works, recently reported incorporated, will make a specialty of chair machinery; will also manufacture boilers, engines, saw-mills, etc.; J. E. Delker, secretary.

Owensboro—Tobacco Stemmery.—Nimrod Long and Stephen D. Long have purchased and will improve the stemmery of Small & O'Flynn.

Rockcastle County—Oil Wells.—Dr. Elmer Northcutt of Valley View, Ky., and D. N. Williams of Mt. Vernon, Ky., have leased and will develop several thousand acres of oil lands in Rockcastle county.

Smithland—Fluor-spar Company.—Pittsburg Fluor-Spar Mining & Manufacturing Co. has been incorporated by W. R. Brown, Edward Kurn, J. W. Green of Pittsburg, Pa.; F. M. Bernard of Paducah, Ky., and others. Capital stock is $50,000. Company has made discoveries of lead and silver near Smithland.

LOUISIANA.

Jennings—Oil Wells.—Union Oil & Development Co., Limited, has been incorporated, with capital stock of $200,000, for development of oil wells. Dr. E. Hall is president; A. M. Arthur, vice-president; R. Dahlen, secretary and treasurer.

Jennings—Oil Wells.—J. W. Dane & Co. of New Orleans have purchased ten acres of land at Jennings, and will probably sink oil wells.

Mansfield—Electric Plant and Water-works. City has voted $13,500 of bonds for electric-light plant and water-works. Address "The Mayor."

New Orleans—Mercantile.—Edmund Gaulon and others have incorporated, with capital stock of $5000, the Gaulon Wood, Coal & Coke Co., Limited, for conducting general coal and wood business.

New Orleans—Warehouse Company.—New Orleans Warehouse Co. has been incorporated in New Jersey, with capital stock of $10,000, by A. H. Joline, Louis H. Hargrove, Henry E. Matteson and William H. Wilson. Butler, Notman, Joline & Mynderse, 54 Wall street, New York, represent the company.

Welsh—Oil Wells.—Verret Oil Well Co., Limited, with capital stock of $150,000, has organized for developing oil wells. H. Delhaye is president; R. R. Arceneaux, vice-president; H. A. Davidson, secretary, and F. D. Calkins, treasurer.

MARYLAND.

Baltimore—Mercantile.—Brotherhood Supply Co., reported during the week to organize, has incorporated, with capital stock of $25,000, for conducting general merchandise business, and will later on erect stores building at Maryland and North avenues. Address George H. Mitzel, 2840 Huntingdon avenue.

Baltimore—Electric Company.—Monarch Electric Co., reported last week as incorporated, has organized for promoting the contract and supply business of C. D. Boyle & Co., and will at some later date build a plant for the manufacture of electric novelties, specialties and general supplies; W. R. Carpenter, president, 412 Equitable Building.

Baltimore—Feldspar Deposits.—American Pottery Supply Co., 23 Glenn Building, intends to develop feldspar deposits in Maryland, Virginia or West Virginia, and is seeking to lease properties.

Baltimore—Can Factory.—American Can Co., which recently absorbed the R. Tynes Smith Can Co., has awarded contract to G. A. & A. U. Davis for erection of an addition to its building, and will install new machinery for increasing capacity; cost of improvements and alterations will be about $10,000.

Baltimore—Food-show Company.—Chartered: National Food Show Co., with capital stock of $10,000, by Frederick H. Gottlieb, Peter Gustavus, Edward Brunings and others.

Cockeysville—Flour Mill.—R. C. Proctor is establishing a 500-bushel meal mill, with chopping and hominy plant. Building will be three stories, 30x40 feet.

Cumberland—Telephone Company.—Western Maryland Telephone Co., lately reported incorporated, has completed organization with James A. McHenry, president; Duncan R. Sloan, vice-president; Carl C. Hetzel, secretary, and Henry J. Glick, treasurer. For particulars address De Warren H. Reynolds, 11 North Liberty street, Cumberland.

Salisbury—Kindling-wood Factory.—W. H. Miller will rebuild his kindling-wood factory, reported burned.

Washington, D. C.—Telephone System and Factory.—The Telephone Company of America will endeavor to secure from Congress a franchise for an additional telephone system in Washington, which, if constructed, will cost $3,500,000; company has also secured possession of the Metropolitan Telephone Co. for $200,000, and will establish a factory for the manufacture of its own instruments, with capacity for 1000 per day. T. W. Tyrer is secretary.

MISSISSIPPI.

Biloxi—Woolen Mill.—The establishment of a woolen mill is contemplated. Commercial Club can be addressed.

Florence—Shovel Manufacture.—Ellison, White & Westbrook have invented a patent all-metal railroad shovel, and are endeavoring to arrange for its manufacture.

Holly Springs—Artesian Well.—Laufkoetter & Bendit of St. Louis, Mo., have received contract for drilling artesian well at Holly Springs for the Holly Springs Ice Co.

Terry—Electric-light Plant.—City has voted $10,000 of bonds for construction of water-works and electric-light plant, previously reported. Address "The Mayor."

MISSOURI.

Kansas City—Pipe Company.—Chartered: Kansas City Furnace Pipe Co., with capital stock of $5000, by E. L. Salmon, Day K. Smith and R. S. Mitchell.

Kansas City—Music Company.—Martin & Vernon Music Co., with capital stock of $10,000, has been incorporated by James M. Martin, A. L. Vernon and others.

Sedalia—Lead and Zinc Mines.—Missouri-Stratton Mining Co. has been incorporated, with capital stock of $300,000, for development of lead and zinc mines.

Springfield—Foundry and Machine Shops.—Springfield Iron Works, recently reported incorporated, has secured the Springfield Stove Works, will enlarge and improve same, installing machinery for the manufacture of iron products of all kinds and for handling mill supplies. H. C. Mosher is president; H. T. Hornsby, vice-president and treasurer, and R. P. Boyer, secretary.

St. Louis—Motor Company.—Mound City Motor Co., with capital of $2000, has been chartered by J. J. Mielke, E. M. Dayle and G. W. Bonney.

St. Louis—Mining.—Chartered: Plattur Mining Co., with capital stock of $50,000, by Philo W. Smith, Thomas S. Rudd, Joseph M. Dunkin and Philo W. Smith, Jr.

St. Louis—Manufacturing.—Chartered: Hafner Manufacturing Co., with capital stock of $150,000, by Henry F. and Joseph A. Hafner.

Wellsville—Oil and Mineral-land Development.—Wellsville Oil & Mining Co. has been organized for development of oil and mineral lands in Montgomery county. Henry Schoer of St. Louis is president; Dr. G. W. Thompson of Collinsville, Ill., vice-president; R. H. Mansfield, secretary, and A. W. Lafferty of Montgomery City, Mo., attorney.

NORTH CAROLINA.

Charlotte — Clothing Factory. — Southern Pants Co. (established) will erect a new factory building.

Charlotte—Drug Company.—R. H. Jordan & Co. (established) will be incorporated, with capital stock of $15,000, by R. H. Jordan (president), John B. Alexander, John M. Scott and others.

Charlotte—Gold Mines.—H. B. Meech has secured control of the Chapman gold mine, and contemplates establishing reduction works.

Edenton—Grist Mill.—E. R. Conger contemplates establishing small grist mill.*

Gastonia—Distillery.—J. D. Brumfield and A. K. Loftin will establish a steam distillery.

Gold Hill—Gold and Copper Mines.—W. C. Newman of 25 Broadway, New York, will develop on a large scale the gold and copper property known as the Gold Hill Mine, and has organized the Gold Hill Copper Co. for the purpose. It is said that $1,000,000 of stock will be issued.

Greensboro — Power-house. — Greensboro Electric Co. has awarded contract for erection of its proposed power-house building to A. J. Dunn; it will be of brick and stone, 112x86 feet.

Hiddenite—Flour Mill.—Davis Bros. will install additional rolls for increasing capacity of their flour mill.

New Berne—Knitting Mill.—Southern Hosiery Mills, reported last week, acquires Clermont Mills and contemplates expending not less than $40,000 for improvements.

Sanford — Cotton Mill. — Sanford Cotton Mills will install 4000 additional spindles and fifty looms; now operates 10,000 spindles and 256 looms. The machinery has been ordered.

Statesville—Telephone System.—Chartered: Statesville Telephone Co., with capital stock of $10,000, by Mrs. Burton of Marion, N. C., and others.

Troy—Cotton Mill.—Smitherman Cotton Mills will, as reported last week, install 100 looms; heretofore has operated spindles (2238) only.

Wadesboro—Water-power-Electrical Development.—Fred. J. Coxe of Wadesboro, S. T. Stowe of Lodo, N. C., and Robert L. Steele of Rockingham, N. C., have incorporated Bluitt Falls Electrical Power Co., with capital stock of $250,000, for developing the power of Bluitt Falls and transmitting same electrically to industries. About 10,000 horse-power is available. Fred. J. Coxe, reported last August as projecting this development, should be addressed.

Whealton—Saw-mill.—Croatan Lumber Co., recently reported under Washington, N. C., as incorporated, has purchased saw-mill, dry-kiln, etc., at Whealton, and will rebuild and operate same. Address V. W. Long or the company at Washington.*

Williamston — Tobacco Company. — Chartered: Martin County Tobacco Co., with capital stock of $25,000.

Wilmington—Lumber Company.—Pittsburg Lumber Co. has been incorporated, with capital stock of $10,000, by W. B. Hays of Pittsburg, Pa.; Henry A. Davis of Osborne, Pa., and Iredell Meares of Wilmington, for operation of the saw-mill formerly owned by C. W. Pike Lumber Co.; plant will be improved and enlarged to a capacity of 50,000 feet per day and machinery installed for manufacture of sash, doors and blinds.

Wilmington—Fertilizer Factory, etc.—John W. Harper, H. C. McQueen and James H. Chadborn have incorporated the Cape Fear Fisheries Co., with capital stock of $40,000, for making oil and fertilizers from menhaden fish.

SOUTH CAROLINA.

Aiken—Kaolin Mines.—Chartered: Aiken Kaolin Co., with capital stock of $50,000, by J. B. McMillan of Graniteville and F. B. Henderson of Aiken.

Barnwell — Truck Company. — Chartered: Easterling Bros.' Co., for conducting general truck business, by J. R. Easterling, J. M. Easterling, B. L. Easterling and others; capital stock is $25,000.

Charleston—Bakery.—Consumers' Bread & Bakery Co. has been incorporated, with capital stock of $50,000, by Clarence B. Schachte and P. E. Gregory.

Charleston—Mercantile.—Henry Bayer & Son Co., importers and exporters of fruit, etc., has incorporated, with capital stock of $25,000; Geo. A. Henguelet, president, and Henry Bayer, vice-president and secretary.

Cheraw—Manufacturing.—Mertonfield Manufacturing Co. has been incorporated, with capital stock of $100,000, by Francis B. Carleton, Geo. T. Nicholas, E. A. Palmer, all of Providence, R. I., and W. P. Pollock of Chesterfield.

Cherokee Falls—Cotton Mill.—The addition to the plant of Cherokee Falls Manufacturing Co., reported last week (under Blacksburg), will give room for 10,000 addition spindles, although just when these spindles will be installed has not been stated.

Chester—Mercantile.—Chartered: Chester Wholesale Co., with capital stock of $20,000, by John R. Alexander (president) and others.

Conway.—Eddy Lake Cypress Co. has increased capital stock from $20,000 to $32,000.

Florence—Water-works.—Commission has been appointed to consider plans for construction of water-works system; Wm. Hoffmyer, chairman.

Gaffney — Emery-wheel Works. — W. D. Howe, Courtland, N. Y., secretary and treasurer of the Taughannock Emery Co., will establish a plant for the manufacture of emery wheels in Gaffney.

Georgetown—Electric-light Plant.—Georgetown Electric Co. has been incorporated, with capital stock of $50,000, for establishing an electric plant, by H. L. Chandler, C. Taylor Leland and H. C. Chase, all of Philadelphia, Pa.

Greenville—Mercantile.—H. K. Sturdevant Co. has increased its capital stock from $20,000 to $50,000.

Greenwood.—Chartered: Blank Bookcase Manufacturing Co., with capital stock of $10,000, for manufacturing cases for blank books, etc., by C. I. Walker of Summerville, S. C., and F. Barron Green of Greenwood.

Latta—Tobacco Company.—Latta Co-operative Tobacco Co. has increased capital stock from $3000 to $7000.

Marion—Hardwood Factory.—J. H. Weedon has removed his hardwood factory from Goldsboro, N. C., to Marion, not from Marion to Goldsboro, as was recently reported.

Union — Mercantile. — Chartered: Mutual Dry Goods Co., with capital stock of $30,000, by A. H. Foster, Thos. C. Duncan, R. P. Harvey and others.

TENNESSEE.

Chattanooga—Vehicle Works.—A. G. Hobson & Co. of Indiana are investigating with a view of establishing a factory for the manufacture of all kinds of vehicles in Chattanooga. H. C. Smith of Chattanooga is interested in locating the plant.

Cleveland—Milling.—Chartered: Cleveland Milling Co., with capital stock of $5000, by W. T. Johnson, George Ham, James Milne, J. E. Mayfield and others.

Henning—Cotton Gin, etc.—W. C. Crutcher, Wm. D. Roberts, J. T. Mullins and others have incorporated the Henning Gin Co., with capital stock of $10,000, for ginning cotton, manufacturing cottonseed oil, etc.

Jackson.—W. A. Taylor will rebuild his saw-mill, recently reported burned.

Jackson — Drug Company.—James-Nelson-Sexton Drug Co., with capital stock of $10,000, by Edward L. James, Jesse L. Nelson and A. H. Sexton.

Johnson City—Water Company.—Johnson City Water Co. has been incorporated, with capital stock of $30,000, by J. B. Cox, L. P. Wood, Samuel T. Willard and others.

Knoxville — Poultry Farm. — C. Duff of Owensboro, Ky., is investigating with a view to establishing a farm for breeding and raising poultry at Knoxville.

Knoxville—Coffin Factory.—Hall & Donahue Coffin Co. will build an addition to enlarge its coffin factory.

Knoxville — Mercantile.—Chartered: Gaut-Ogden Company, with capital stock of $25,000, by Frank P. Gaut, Samuel A. Ogden and others.

Memphis — Furniture Company.— Security Furniture Co. has been incorporated, with capital stock of $5500, by W. R. Fleming, J. W. Crane, Tom Fleming and others.

Memphis — Stave Factory. — Kennedy & Morelock Stave Co. of Wynne, Ark., and Birmingham, Ala., has purchased site at Memphis and will establish plant to manufacture and finish tight staves and heading.

Nashville — Furniture Factory.—Davidson-Benedick Lumber Co. has commenced work on erection of its proposed furniture factory; main building is of brick, two stories, 60x154 feet; second building is of frame, 48x96 feet.

Sibley—Handle Factory.—Wakefield & Orr are establishing an axe-handle factory.

Sparta—Stave Mill.—Wm. Lyles will install machinery for the manufacture of staves.*

Stewart County—Ore and Timber Lands.—D. N. Helfric of Evansville, Ind., has purchased the Rough and Ready furnace property, consisting of 8000 acres of ore and timber lands in Stewart county, for $60,000, and will develop same.

Tennessee—Oil Wells.—Fred L. Chase of Toledo, Ohio, will organize company for developing oil properties in Tennessee and Kentucky, where he has leases and deeds to about 9000 acres.

Tennessee—Coal Lands.—A. B. McDonald and Clide Hutchinson of Fairmont, W. Va., are negotiating for the purchase of several thousand acres of coal lands in Tennessee, and if successful will develop the property.

Tullahoma — Carriage Factory. — Chicago parties are investigating with a view to establishing a wagon and carriage factory at Tullahoma.

Winchester—Oil Wells.—Franklin County Oil & Gas Co. has been incorporated, with capital stock of $10,000, by F. A. Pattie, J. C. Hale, W. H. Carmack and others.

TEXAS.

Austin—Oil Wells.—Chartered: Austin-Henrietta Oil Co., with capital stock of $15,000, by W. H. Thaxton of Bluff Springs, Texas; A. F. Martin, J. J. Ellers, T. J. Bennett and others.

Beaumont—Oil Wells.—Benton McMillan of Nashville, Tenn., has been chosen president of the Huntley Oil & Refinery Co., now operating on Spindle Top. The first well is down about 150 feet, C. E. Jones Development Co. having the contract.

Beaumont—Oil Wells.—Chartered: Louisiana Purchase Oil Co., with capital stock of $250,000, by D. L. Mayer, U. A. Patterson, E. Patterson, C. M. Booth, all of Port Arthur, Texas; Chas. A. Booth of Beaumont and others.

Beaumont—Oil Wells.—Texas Fuel Oil Co. has been incorporated, with capital stock of $1,000,000, by I. D. Webster, J. R. Bankdrop, A. E. Clark and others.

Beaumont—Cooperage.—Central Asphalt & Refining Co. will erect a building 100x290 feet, to be equipped as a cooperage, to employ seventy-five men.

Beaumont—Oil Wells.—Mitchell Oil Co., with capital stock of $110,000, has been incorporated by Edmund Mitchell, S. D. Mimms and others.

Beaumont—Oil Wells—Sabine Oil & Manufacturing Co. of Jersey City, N. J., with capital stock of $5,000,000, has been incorporated by M. L. Lockwood, S. G. Lockwood and Clarence Lockwood for development of 2500 acres of oil lands between Beaumont, Texas, and Jennings, La.

Big Springs—Mercantile.—Chartered: Mathews-Walcott Company, with capital stock of $50,000, by R. D. Mathews and others.

Bonham—Ice Plant.—Bonham Ice Co. has increased its capital stock (as recently reported), and will double capacity of its plant.

Dallas — Printing. — Chartered: American Specialty Advertising Printing Co., with capital stock of $10,000, by A. L. Hodge, Geo. L. Withers and Chas. A. Rasbury.

Fort Worth—Irrigating Plants.—A Chicago company has purchased the property of the Highland Irrigating Co., and will expend $1,000,000 in improvements, which will include construction of six additional miles of ditches; plant now irrigates 15,000 acres; same parties have also purchased the Pecos river irrigating plant of seventeen ditches, and will expend $100,000 in betterments.

Fort Worth—Telephone Improvements.—Southwestern Telephone & Telegraph Co. will expend $50,000 in improving its Fort Worth plant; J. F. Henderson, local manager.

Graham—Oil Wells.—Judge R. F. Arnold is prospecting for oil.

Jacobia—Cotton Gin.—C. Dodson will rebuild his cotton gin, previously reported burned; will install six-gin steam outfit.*

Lockhart — Creamery.—The establishment of a creamery is talked of. Address D. J. Peeler.

Port Lavaca—Canal, etc.—R. L. Clark, who owns several thousand acres of land on Union creek, will construct dam and canal for irrigation purposes.

San Antonio—Paving.—Nelson Paving Co. has been incorporated, with capital stock of $100,000, by J. P. Nelson, J. H. Briggs and J. Simpson.

Sayersville—Cotton Gin.—A. H. Jones & Son will rebuild their ginnery, lately reported burned.

Stratford—Mercantile.—Chartered: Stockmen's Mercantile Co., with capital stock of $20,000, by W. B. Slaughter and others.

Swaly — Development Company. — Chartered: East Bernadino Development Co., with capital stock of $20,000, by E. G. McGruder, A. C. Preibisch and O. P. Preibisch.

Waco — Stockyards, etc. — Texas Central Railway will expend $150,000 in improvements at Waco, which include erection of new passenger and freight depots, stockyards, etc.; W. B. Doddridge, general manager, St. Louis, Mo.

VIRGINIA.

Alexandria — Shoe Factory. — Alexandria Shoe Co. will install new machinery for enlarging and improving its factory.

Alexandria—Drug Company.—The Tourjst Company has been incorporated to conduct a manufacturing drug business, with capital stock of $100,000, by R. W. Brown, president; Mary Olmstead, vice-president; W. M. Starr, treasurer, and Katy B. Klock, secretary.

Buckingham—Oil Wells.—A. W. Harman and Warwick C. White of Rockbridge, Va., have purchased 15,000 acres of land in Buckingham county, and will prospect for oil.

Culpeper—Flour Mill.—G. M. Brown and Marion Jeffries of Culpeper and L. W. Graves of Charlottesville will build a mill with capacity of 100 barrels of flour and 500 bushels of meal per day. Contract has been awarded for erection of building.

Flint—Gold Mines.—J. L. Roper of Norfolk, Dr. J. E. Huff and John Kennett are developing gold mine at Flint, and will erect stamp mill.

Harrisburg—Sewerage.—John C. Burke has received contract at $2793 for constructing 3500 feet of public sewer, in accordance with plans and specifications prepared by Engineer Davis.

Norfolk—Silk Mill.—Norfolk Silk Mill Co. has purchased 125 additional looms, which will be the machinery reported last week; erection of another building is also contemplated.

Norfolk — Paper-box Factory. — Virginia Paper Box Co. has been incorporated, with capital stock of not less than $17,000 nor more than $25,000, for the manufacture of paper boxes, etc.; W. D. Hemingway, president; J. S. Heller, vice-president, and Samuel Linthicum, treasurer.

Norfolk—Saw-mill, Woodworking Factory, etc.—John Seip of Chillicothe, Ohio, who was recently reported as having purchased 15,000 acres of timber lands bordering on the Dismal Swamp and to irrigate and drain the property preparatory to operating a large truck farm, will erect large band-saw mill, woodworking plant, etc. For the development the Virginia Land & Lumber Co. has been incorporated, with capital stock of $60,000. Edward Schilder of Chillicothe, Ohio, is president; Frank Flee of Washington, D. C., vice-president; Milton P. Jones of Norfolk, Va., secretary, and Mr. Seip, treasurer.

Richmond—Produce Company.—Meoni Produce Co. has been incorporated, with capital stock of not less than $1000 nor more than $5000, by F. M. Meoni, president and treasurer.

Salem—Coal Mines.—J. W. Hood has leased and will develop coal mines.

Salem.—J. Scott Thomas of Elliston, Va., has patented a reflector for lamps and electric lights, and will organize a stock company for manufacturing same with W. W. Moffett, president; J. S. Thomas, vice-president; R. W. Kime, secretary and treasurer, and J. H. Chapman, general manager. Address the manager at Salem.

Virginia — Mining. — Virginia Consolidated Copper Co. has been incorporated under New Jersey laws, with capital stock of $1,000,000, by W. Harry Hamilton, R. N. Ellis and R. A. Dunshee, all of Camden, N. J., to mine and prepare for market metals and minerals of all kinds.

WEST VIRGINIA.

Braxton County—Coal-land Developments. It is reported that S. B. Elkins of Elkins and associates have purchased 30,000 acres of coal lands in Braxton and Lewis counties, and will extensively develop same.

Clarksburg—Woodworking Factory.—W. S. Mayers has organized the West Virginia Woodworking Co. to manufacture hardwoods, etc.

Clarksburg.—Company previously reported organized, with capital stock of $500,000, for developing coal and oil lands will be known as the Columbia Oil & Gas Co., and has representatives in Garrett county making surveys for wells. Thomas B. Keating of Washington, D. C., is president, and J. P. Moore of Sand Fork, W. Va., general manager.

Elkins—Timber Lands.—William Whitmer & Sons, Inc., of Philadelphia, Pa., have purchased 6000 acres of timber lands near Elkins for $45,000, and will probably develop the property.

Huntington — Glass-tumbler Works.— The Huntington Tumbler Co. has been incorporated, with capital stock of $50,000, by W. E. Hunter and others for manufacture of fine-blown pure lead-glass tumblers, goblets and bar goods, having purchased plant of West Virginia Flint Bottle Co., which it has converted into a modern plant. Company was reported recently by mistake as the Huntington Lumber Co.

New Martinsville—Glass Works.—New Martinsville Glass Co. will increase capital stock from $50,000 to $100,000.

Piedmont — Telephone System.—Piedmont Telephone Co., with capital stock of $10,000, has been chartered for constructing telephone lines, by J. T. Lauklin of Luke, Md.; J. S. Jamison, Westernport, Md.; C. D. Webb and Timothy Kenny of Piedmont, W. Va.

Preston County — Timber-land Development.—H. C. Hutson and J. L. Kendall of Connellsville, Pa., have purchased 2000 acres of timber lands in Preston county (as recently reported), will construct four miles of railway and erect a mill for developing the property.

Salem—Oil Wells.—Maryland Oil Co. has been incorporated, with capital stock of $100,000, to operate oil properties, by E. M. Schindel, John W. Feldman, A. Helmel, L. J. Orrick and G. D. Oswald, all of Hagerstown, Md.

Wheeling—Improvement Company.—Wheeling Improvement Co. will apply for charter and complete its organization for the improvement and development of 285 acres of land recently acquired.

Wheeling — Zinc Property. — Mrs. M. F. Wood and others have purchased the Peter Zinn zinc-mining property.

Wilsonburg — Coal Mine.— Judge Nathan Goff of Charleston is having surveys made for developing a coal mine.

OKLAHOMA TERRITORY.

El Reno—Mining, etc.—Chartered: Sandercook-Williams Mining, Realty, Loan & Investment Co. of El Reno, O. T., and Minco, I. T., with capital stock of $500,000, by J. O. Sandercook, El Reno; Robert L. Williams, L. K. Brigham of Minco and George Dunnett of Fort Sill.

Enid—Ice and Fuel Company.—Frank L. Williams, Wm. A. Williams, Harry B. Decker and others have incorporated the Enid Ice & Fuel Co., with capital stock of $80,000.

Lamont—Construction.—Chartered: Interstate Construction Co., with capital stock of $5000, by Ed. Brazell, H. B. Heberling, A. C. Thompson and Albert Hunt.

Oklahoma City — Drug Company. — Scott Drug Co. has been incorporated, with capital stock of $12,000, by Robert M. Scott, Carrie P. Scott and Mary V. Scott.

Oklahoma City — Dental Manufacturing Company.—Chartered: E. E. Kirkpatrick Dental Manufacturing Co., with capital stock of $15,000, by E. E. Kirkpatrick, F. D. Dole and A. J. Kirkpatrick.

Oklahoma City—Mattress Factory.—Street & Reed Furniture & Carpet Co. will erect an addition to its store building, four stories, 75x77 feet, in which machinery will be installed for the manufacture of mattresses, etc.

Tonkawa—Lumber Company.—Cragen Lumber Co. has been incorporated, with capital stock of $15,000, by Fred E. Cragen of Tonkawa, Harry Cragen and Wm. T. Field of Caldwell, Kan.

BURNED.

Austin, Texas.—Austin Candy Co.'s candy factory; loss $10,000.

Daugherty, Ind. Ter.—W. Wehel's gin; loss $4000.

New Orleans, La.—Union Furniture Co.'s plant; estimated loss $300,000.

New Orleans, La.—Sedge Mattress and Spring Bed Factory; estimated loss $35,000. Address 715-733 Tchoupitoulas street.

Paris, Ky.—County courthouse; loss $130,000. Address "County Commissioners."

Stellaville, Ga.—Taylor, King & Co.'s gin-nery; loss $3000.

BUILDING NOTES.

Atlanta, Ga.—Dwelling.—J. S. Coon will erect a $5000 dwelling; contract not awarded.

Atlanta, Ga.—Factory Building.—Swift's Specific Co. has let contract to Griffin & Fitts for erection of a $3000 addition to its factory.

Augusta, Ga.—Depot.—Arrangements are being completed for the purchase at about $80,000 of a site for the proposed union passenger depot for the Seaboard Air Line and the Georgia Railroad. Thos. K. Scott is general manager of Georgia Railroad.

Bainbridge, Ga.—"County Commissioners" have awarded contract to W. H. Carr at $32,500 for erection of Decatur county's proposed courthouse.

Baltimore, Md.—Car Barn.—Washington & Annapolis Electric Railway Co., James L. Christy, Jr., of Washington, D. C., general manager, has purchased site at Westport and will erect car barn.

Baltimore, Md.—Zoo Building.—Frank C. Bostock has awarded contract to E. M. Noel for erection of his proposed zoo building, plans for which have been prepared by Geo. Thomas, and which call for building of brick, fireproof, 150x200 feet, and to cost $12,000.

Birmingham, Ala.—Hotel.—W. H. Woodward states that there is no truth in the report that he will erect a 12-story hotel building.

Cedar Springs, S. C.—Institute.—George Waring of Columbia, S. C., has contract for erecting Cedar Springs Institute. Building will be of brick, three stories, 62x178 feet, and cost $20,000.

Charleston, W. Va.—Business Block.—W. A. Bradford will erect a five-story business block 72x120 feet.

Charlotte, N. C.—Library.—Wheeler, McMichael & Co., architects, will receive bids until November 1 on Carnegie Library building.

Charlotte, N. C.—Church.—Wheeler, McMichael & Co. have prepared plans for Bethel A. M. E. Church.

Charlotte, N. C.—Parsonage.—Wheeler, McMichael & Co. have prepared plans for Baptist church parsonage.

Chattanooga, Tenn.—Warehouse.— Keyser Manufacturing Co. will erect large warehouse.

Clayton, N. C.—Academy.—Clayton School Co., reported recently as organized, will erect a two-story frame academy to cost $3000; W. A. Barnes, secretary.

Gainesville, Ga.—Hotel.—Dr. J. W. Bailey will erect house to be used as small hotel.

Gastonia, N. C.—Schools.—J. T. & Elmer Spencer have received contract at $9625 for erection of the two proposed graded school buildings.

Hazlehurst, Miss. — Courthouse. — J. B. Mayes, clerk of supervisors, will open bids December 2 for building the courthouse previously mentioned. Plans and specifications are at office of J. Reily Gordon Co., Shreveport, La., and Dallas, Texas, and E. Standford Hall, suite 938, 153 La Salle street, Chicago, Ill., and at chancery clerk's office, Hazlehurst. Usual rights reserved.

Houston, Texas—City Hall and Market.—F. S. Glover is preparing plans for the city's proposed city hall and market to cost $200,000; city hall will be four stories, of brick and granite.

Houston, Texas—Club Building.—The Concordia Club is having plans made for erection of a new three-story building to cost $15,000.

Jackson, Miss.—Courthouse.—Bids will be received by supervisors of Hinds county until November 18 for building the courthouse previously reported; outside dimensions 96x132 feet, stone, press brick and terra-cotta for the walls; $55,000 is available. Address Wm. S. Hull, architect.

Jacksonville, Fla.—Dr. Sollace Mitchell has awarded contract to Architect Gilkes for erection of a three-story building 40x90 feet.

Laurinburg, N. C.—Hotel.—Wheeler, McMichael & Co. of Charlotte have prepared plans for hotel at Laurinburg for J. E. Morgan.

Laurinburg, N. C.—Residence.—Wheeler, McMichael & Co. of Charlotte have prepared plans for residence for Mr. James.

Laurinburg, N. C.—Courthouse and Jail.—Wheeler, McMichael & Co. of Charlotte have prepared plans for courthouse and jail at Laurinburg.

Louisville, Ky.—Storehouse.—E. C. Albers has made plans for storehouse for George Schuster.

Louisville, Ky.—Hotel.—Otto Seelbach and others will incorporate a stock company, with capital of $200,000, for operating Seelbach Hotel.

Mobile, Ala.—Sanitarium.—J. H. Barnes of Jackson, Miss., has received contract for improvements to be made at the Convent of the Visitation, which will involve an expenditure of $50,000.

Myersville, Md.—Bank Building.—Myersville Savings Bank, E. A. Young, secretary, will contract for erection of a pressed-brick structure 20x35 feet.

Nashville, Tenn.—School.—Chartered: Dresden Training School, with capital stock of $5000.

New Orleans, La.—Shed.—Commissioners of port of New Orleans, 337 Carondelet street, will open bids November 19 for furnishing and erecting steel shed, with composition roof, sixty feet wide and 500 or more feet long. Deposit $1000. Bond for total amount of contract price. Usual rights reserved. Specifications, plans and blank proposal forms at above office or office of Coleman & Malochee, engineers, 319 Carondelet street.

Norfolk, Va.—Club, etc.—Morse's Point Gunning Co. has been incorporated, with capital stock from $5000 to $10,000, and contemplates erection of clubhouse and hotel at Morse's Point. L. W. Davis is president.

Orange, Texas—Business Block.—Geo. W. Bancroft will erect a two-story brick business block.

Parkersburg, W. Va.—Opera-house.—Opera-House Investment Co. has awarded contract for erection of its proposed building to Caldwell & Drake at $150,000.

Parkersburg, W. Va.—Dwellings.—Parkersburg Iron & Steel Co. has contracted for erection of thirty dwellings.

Parkersburg, W. Va.—Business Block.—George Romine has purchased the Silver Dollar Theater building, and will convert it into a business block.

Raleigh, N. C.—Orphanage.—Plans of Chas. Pearson for the new main building of the Methodist Orphanage have been accepted, and call for a three-story building to cost $25,000.

Richmond, Va. — Synagogue. — Sir Moses Montefiore congregation will erect new synagogue. Address Rabbi Graffman.

Richmond, Va.—Hotel.—W. H. Zimmerman has accepted plans of Peebles & Co. for his proposed hotel.

Roland Park, Md.—Dwelling.—Chas. W. Slagle, Jr., of Baltimore is having plans made for erection of a $12,000 residence.

Salisbury, N. C.—Residence.—E. B. C. Hambley has awarded contract for erection of his proposed dwelling to Lazenby Bros. of Salisbury and Statesville. C. C. Hook of Charlotte prepared the plans, which call for a $30,000 residence.

San Antonio, Texas—Church.—First Baptist congregation has had plans made for erection of a $20,000 structure. Rev. A. J. Harris is pastor.

San Marcos, Texas—Depot.—International & Great Northern Railroad Co. contemplates erecting depot at San Marcos; Leroy Trice, general superintendent, Palestine, Texas.

St. Joseph, Mo.—Armory.—National Guard of Missouri contemplates erecting a $30,000 armory. Address Col. William E. Stringfellow.

Tifton, Ga.—Jail.—Berrien county has contracted with the Pauly Jail Building Co. of St. Louis, Mo., at $7997.50 for erection of its proposed jail, two stories, brick, steel cells and all latest improvements.

Washington, D. C.—Dwelling.—Thomas F. Walsh of Colorado will erect a four-story brick, stone and granite residence, structural work of which will be of steel and stone; cost $300,000.

Welsh, La.—Bank Building.—The new bank, organized with F. D. Calkins, president, will erect office building.

Wheeling, W. Va.—Office Building.—German Fire Insurance Co. will erect a seven-story brick, stone and steel office building to cost $50,000.

Winchester, Va.—Hospital.—Dr. Hunter H. McGuire, president, will open bids November 1 for furnishing all labor, material and for the erection of the proposed Winchester Memorial Hospital. Plans and specifications can be seen at Dr. McGuire's office.

RAILROAD CONSTRUCTION.

Railways.

Aberdeen, N. C.—Surveys are now being made for an extension of the Aberdeen & Rockfish Railroad south beyond Fayetteville, and it is understood that several miles will be constructed in the near future. John Blue at Aberdeen is president of the company. At present the line is in operation between Aberdeen and Rockfish, a distance of thirty-three miles.

Ashburn, Ga.—A charter has been granted to the Flint River & Gulf Railroad Co., and it is stated that work is to begin immediately upon this line between Ashburn and Bainbridge. It is understood to be a branch of the Central of Georgia system, of which John M. Egan is president.

Attalla, Ala.—A report is current that the Southern Railway Co. is considering an extension from Attalla to Oneonta, and that the line may possibly be extended to Decatur, Ala. The distance to Oneonta is twenty-five miles and to Decatur is seventy miles. W. H. Wells at Washington is engineer.

Ava, Mo.—The Ava Northern Electric Railway Co. has elected W. J. Turner, president, and J. H. Murray, vice-president. The company proposes building between Ava and Cedar Gap, in Wright county, an estimated distance of fourteen miles.

Birmingham, Ala.—It is announced that the St. Louis & San Francisco Company has decided to reballast the line between Memphis and Birmingham, and to make other improvements to the roadbed. B. F. Yoakum at St. Louis is president of the company.

Burnside, Ky.—It is reported that the Cumberland & Nashville Railroad Co. has completed arrangements for its line from Burnside through Monticello and Albany to a point on the Tennessee State line. The estimated distance is forty-five miles. Among the promoters of the company are G. W. Waller of Cincinnati, Ohio, and James Denton of Somerset, Ky.

Cadiz, Ky.—It is reported that nearly all of the Cadiz Railroad, under construction between Cadiz and Gracey, Ky., has been graded, and that tracklaying will begin in the near future. C. Stacker at Cadiz is engineer of the road.

Chattanooga, Tenn.—It is reported that local parties are interested in the construction of another incline railroad to the top of Lookout mountain, which will be operated by cable power.

Cumberland, Md.—It is reported that arrangements have been made to extend the West Virginia Central & Pittsburg Railroad to Palestine, W. Va., where a connection will be made with the Little Kanawha Railway, with a view to completing a new route from the Ohio river to the Chesapeake bay at Baltimore, utilizing the Western Maryland road. C. L. Bretz at Cumberland is general manager of the company.

Cuthbert, Ga.—It is reported that the Atlantic, Valdosta & Western Railroad Co. has decided to construct an extension to the Chattahoochee river by way of Cuthbert. E. C. Long at Jacksonville, Fla., is vice-president of the company.

Danville, Va.—An election will be held at Danville to decide on the question of aiding the Mount Rogers & Eastern Railway, which it is proposed to construct through Danville to a point on tidewater. Arthur Meigs at Jacksonville, Fla., is one of the promoters.

Denison, Texas.—It is reported that surveys in the interest of the Texas & Pacific Company have recently been completed between Denison and Lehigh, I. T., for the extension to be built next year. L. S. Thorne at Dallas is vice-president of the Texas & Pacific.

Fort Pierce, Fla.—The company promoting the railroad between Fort Pierce and Punta Rassa, on the Gulf coast, has the title of the Southern Florida & Gulf Coast Railroad Co., and is capitalized at $2,000,000. John M. Roach is president; William B. Gurley, vice-president, and Millard B. Hereley, secretary. All of the officers are of Chicago. Mr. Roach's address is 2007 Surf street, and Mr. Hereley's is 452 La Salle avenue.

Greenville, N. C.—Work has begun upon the railroad to be constructed in the interest of the Beaufort County Lumber Co. It is to extend between Greenville and Vanceboro, an estimated distance of twenty-five miles.

Gurnee, Ala.—The Birmingham & Montevallo Railroad Co. of Lacy, Ala., it is reported will open a mine at Lacy and construct about five miles of railroad in connection with it.

Houston, Texas.—It is reported that local business men have become interested in the plan to connect Houston and Galveston by an electric railroad, and that a company may be formed in the near future.

Keyser, W. Va.—It is reported that the Baltimore & Ohio Company has determined to extend its yards at Keyser, and has recently purchased about 100 acres of ground for the purpose. J. M. Graham at Baltimore is chief engineer.

Knoxville, Tenn.—It is stated that Canadian capitalists are interested in the proposed railroad between Knoxville and a point in Sevier county, and that surveys are to be made immediately. Ashley Johnson of Kimberlin Heights, Tenn., is one of the principal promoters.

Lenoir, N. C.—The Caldwell & Northern Railroad Co., it is reported, may build a line from Collettsville to Houck, N. C., an estimated distance of twenty-nine miles. The road is now in operation between Lenoir and Collettsville, a distance of eleven miles. J. C. Williams, general manager of the company, may be addressed at Lenoir.

Lewisburg, W. Va.—Greenbrier county will vote on November 16 on the question of taking a subscription to the stock of a railroad between Lewisburg and Ronceverte. The enterprise is now being promoted by business men of the towns mentioned.

Little Rock, Ark.—According to the statement of Vice-President Holden of the Choctaw & Memphis system the branch to Amarillo, Texas, has been completed as far as Texhoma, a distance of eighty-five miles. About twenty miles have been completed on the Ardmore branch, while the line between Geary and Alva, a distance of 104 miles, is now in operation. In Arkansas the extension between Benton and Butterfield, on the Hot Springs division, is nearly ready for service. It is eighteen miles in length.

Lumberton, N. C.—The extension of the Carolina Northern Railroad north to Marion, S. C., has been garded, and about thirteen miles of track laid. It is calculated that the road will be in operation between Lumberton and Marion by November 15. Augustus Mellier, Bourse Building, Philadelphia, Pa., is one of the principal promoters of the enterprise.

Marshall, Texas.—The business men of Marshall have accepted the proposal to offer right of way and other concessions to the Texas Southern Railway Co., and it is expected to have the extension, now under way between Marshall and Winnsboro, Texas, completed by January 1. Among those interested is S. P. Jones of Marshall.

Monterey, Tenn.—It is expected that the 17-mile branch of the Nashville & Knoxville Railroad, under construction between Monterey and Crawford, will be completed about November 1. It will be extended to the coal mines in the vicinity of Crawford.

Nashville, Tenn.—It is announced that the Callahan Construction Co., which has the general contract to extend the Tennessee Central Railroad between Nashville and Lebanon, has sublet all the work, which covers thirty-two miles. The company also has a contract for building ten miles within the city limits of Nashville. Nearly seventeen miles of track have been laid thus far. Jere Baxter at Nashville is president of the railroad company.

New Orleans, La.—The New Orleans, Ansley & Birmingham Railroad Co. has recently secured a charter in Mississippi to build between New Orleans and Birmingham. This is the road which is being promoted by a syndicate which includes L. J. Anderson and M. E. Ansley of Bay St. Louis, Miss., and H. Dudley Coleman of New Orleans.

Norton, Va.—The Norton & Pound River Railroad is now being completed between Norton and a point near Pound Gap, Ky., an estimated distance of twenty miles. It is stated that the promoters of the enterprise expect to extend it further to coal fields in Boone county, Kentucky.

Paducah, Ky.—In a letter to the Manufacturers' Record Mr. E. W. Smith, president of the Paducah & Cairo Railway, writes that surveys have been made and estimates secured. It is intended to secure a right of way as soon as possible. The road will be built between Paducah and Cairo, a distance of thirty-three miles.

Paducah, Ky.—The company promoting the railroad between Paducah and Wyckliffe has elected E. W. Smith, president; Stokes Payne, vice-president, and Lloyd Bloomfield, secretary, all the officers being of Paducah. The company is capitalized at $750,000, and it is stated that already a route has been surveyed.

Snow Hill, N. C.—It is reported that the branch of the Atlantic & North Carolina Railroad proposed to Snow Hill will be completed within the next year. The estimated length of the line is fifteen miles. James A. Bryan of Goldsboro, N. C., is president of the company.

Staunton, W. Va.—It is reported that arrangements are being made to finance the Staunton & Augusta Railroad, proposed between Staunton and Elkins, W. Va. E. C. Vincent at Staunton is president of the company.

Villa Rica, Ga.—The promoters of the railroad between Villa Rica and the pyrites mines in Carroll county have secured a charter to build a road, which will be about three miles in length. W. A. Vaughan of Atlanta is one of the promoters.

Waco, Texas.—The Texas Central Railway Co. has made arrangements to construct its own tracks into Waco, and the work is now in progress in the suburbs. Charles Hamilton of Waco is general manager of the company.

Waycross, Ga.—The report that the Waycross Air Line is to be extended to Birmingham, Ala., is officially confirmed. The stockholders of the road have endorsed the proposed extension from Cordele. It is also stated that the line will probably be extended south to Brunswick, Ga. The capital stock has been placed at $7,000,000. G. D. Wadley at Waycross is general manager of the company.

Street Railways.

Huntsville, Ala.—The project of constructing an electric railroad between Huntsville and Monte Sano has been revived by local parties, and it is stated that surveys will be commenced in the near future.

Little Rock, Ark.—J. A. Woodson, president of the Little Rock Traction Co., informs the Manufacturers' Record that it will construct about three and one-half miles of extensions. At present it controls twenty miles of line.

Natchez, Miss.—W. A. Percy of Memphis, Tenn., is interested in the proposed street railway at Natchez, which will be about four miles in length if built.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—Alabama Consolidated Coal & Iron Co., Birmingham, Ala., is in the market for a 16-inch straight-line steam-driven air compressor of standard make, etc., new or second-hand.

Automobile Manufacturers.—Roe Edwards, Shiloh, Ga., wants addresses of makers of automobiles.

Belting.—See "Saw-mill, etc."

Belting, etc.—W. A. Taylor, Jackson, Tenn., will want pulleys, shafting, belting, etc.

Belting and Pulleys.—See "Woodworking Machinery."

Boiler.—Wm. Minnigerode, Lynchburg, Va., wants 25-horse-power upright boiler complete.

Boiler.—E. Mills, 6 Morningside avenue, New York, N. Y., is in the market for a 75-horse-power boiler for saw-mill.

Boiler and Engine.—See "Cotton Gin."

Boiler and Engine.—W. P. Biddle, Knoxville, Tenn., is in the market for a 10-horse-power upright boiler and six-horse-power engine.

Boiler Rolls.—See "Foundry Equipment."

Boilers.—See "Saw-mill, etc."

Brick Machinery.—See "Tile Machinery."

Building Materials.—Florida Paint Co., 731-733 West Bay street, Jacksonville, Fla., is in the market for sash, doors, blinds and glass.

Button Machinery.—Houston R. Harper, Rome, Ga., wants full information regarding machinery, etc., for the manufacture of pearl buttons from mussel shells.

Canal.—New Orleans Land Co., John E. Huffman, secretary, 338 Carondelet street, New Orleans, La., will open bids November 6 for digging a drainage canal. Bids will be received separately for excavating only (by hand), and for furnishing and constructing culverts, and for the work as a whole. Bids for a dredged canal will also be entertained. All bids must be accompanied by certified check for $500. Bond required and usual rights reserved. Particulars on application.

Can Manufacturers.—Florida Chemical Co., Jacksonville, Fla., is in the market for baking-powder cans, both paper with tin ends and entirely of tin.

Canning Machinery.—Hunter Pope, Decatur, Ga., wants estimates on entire cost of construction, needs, etc., of small capacity canning factory.

Chair Factory.—See "Woodworking Machinery."

Chalk Machinery.—Currie Fertilizer Co., Chas. Earle Currie, president, Louisville, Ky., is in the market for machinery to manufacture chalk into commercial whiting, precipitated chalk and drop chalk.

Cotton Gin.—C. Dodson, Jacobia, Texas, wants a six-gin steam outfit, including 70-horse-power boiler and 55-horse-power engine; wants prices f. o. b. Neyland, Texas.

Creosoting Plant.—Hughes Specialty Well-Drilling Co., Charleston, S. C., wants information concerning machinery, new and second-hand, for creosoting plant.

Crushing Equipment.—See "Electrical Machinery."

Dryer.—Colorado Salt Co., Colorado, Texas, is in the market for a steam dryer for drying all grades of salt.

Electrical Machinery.—Thompson, Son & Co., 107 Liberty street, New York, N. Y., are in the market for two 100-kilowatt Edison bipolar 125-volt dynamos and one 100-kilowatt Edison bipolar 500-volt extra armature, second-hand.

Electrical Machinery.—Thompson, Son & Co., 107 Liberty street, New York, N. Y., are in the market for second-hand apparatus, for immediate delivery—5000 feet two-and-one-half-inch iron pipe, 14x7x12 duplex underwriters' fire pump, 16x9x12 duplex underwriters' pump, 15-ton standard-gauge locomotive, saddle tank; 25-ton standard-gauge locomotive, saddle tank; bone-crushing outfit, six tons per hour capacity; two hydraulic presses 60x21 inches, one double-effect vacuum pan, about 400 gallons per hour capacity; six-ton revolving dryer, fifteen assorted sizes steam-jacketed pans and kettles, two digesters 12-foot by 60-inch, 150-kilowatt 250-volt dynamo, 100-kilowatt 250-volt dynamo, two 100-kilowatt Edison bipolar 500-volt dynamos, and one 15-horse-power 500-volt motor.

Electrical Motor.—See "Heating Apparatus."

Engine.—See "Woodworking Machinery."

Engineering Equipment.—Mechanical Engineering Department of West Virginia University, Morgantown, W. Va., will install a new plant.

Excelsior Machinery.—H. C. Edwards, Kernersville, N. C., wants addresses of manufacturers of excelsior machinery.

Fiber Machinery.—Salem Iron Works, Winston-Salem, N. C., wants full information, prices, power required and capacity of machines for extracting and preparing for market fiber from the maguey, pineapple, yuca, ramie, manila, hemp, jute and other similar fiber-bearing plants; if possible, send sample of work done on machine.

Foundry Equipment.—See "Machine Tools."

Foundry Equipment.—D. L. Casey Machine Co., Springfield, Ohio, is in the market for boiler binding rolls eight feet between housings, punch and shears, second-hand.

Furniture.—Wheeler, McMichael & Co., Charlotte, N. C., wants bids on pews for church.

Furniture.—Contracts will be awarded November 7 for wood and steel furniture for courthouse at Waterloo, Iowa; Chas. F. Foote, deputy auditor.

Gate Valves.—Bids will be opened October 25 by board of public works, Harry B. Walker, secretary, Kansas City, Mo., for furnishing one 42-inch gate valve, two 30-inch gate valves and two 36-inch gate valves. Blueprints giving details as to style, dimensions and weights must accompany each bid. Specifications at office of engineer of water department. Certified check for $200 must accompany each bid. Usual rights reserved.

Graphite-separating Machinery.—Box 146, Charlotte, N. C., wants to purchase machinery for separating dirt from graphite.

Grist Mill.—E. R. Conger, Edenton, N. C., wants outfit for small grist mill.

Heating Apparatus.—W. Chamberlin & Co., 2015 First avenue, Birmingham, Ala., will open bids November 14 for heating apparatus for church at New Martinsville, W. Va. Plans can be seen at parsonage of Rev. A. D. Light at New Martinsville, or at office of architects. Furnace heat preferred.

Heating Apparatus.—Board of awards, care of Geo. M. Numsen, city register, Baltimore, Md., will open bids October 28 for installing hot-water heating apparatus at No. 11 truck-house; also for a 40-horse-power multipolar motor, to be placed in City Hall to operate elevator. Certified check for $200 must accompany each bid for apparatus and $100 with each bid on motor. Usual rights reserved.

Ice Machinery.—Florida Fish & Produce Co., Jacksonville, Fla., will later on be in the market for ice machinery.

Ice Plant.—Alabama Hardwood Manufacturing Co., Montgomery, Ala., wants machinery for ice plant.

Iron Fencing.—W. J. Neale, Waco, Texas, wants prices on iron fences.

Iron Molding.—Safety Electric Manufacturing Co., 510 Gravier street, New Orleans, La., is in the market for fancy sheet-iron molding with which to make cabinet facings for electric panel boards, to be of iron not thinner than No. 12 and No. 14, and to be four inches in width for facings and two inches in width for the door frames, and the two to be of the same general design.

Lime-kilns.—R. S. Blackburn Smith, Lock Box 29, Berryville, Va., wants addresses of manufacturers of patent lime-kilns.

Lumber.—Lockwood Manufacturing Co., Birmingham, Ala., is in the market for poplar and cottonwood lumber.

Machine Tool.—Colorado Salt Co., Colorado, Texas, is in the market for a pipe-cutting and threading machine with capacity from one to four-inch pipe.

Machine Tools.—Battey Machinery Co., Rome, Ga., is in the market for new or second-hand lathe eight feet between centers, 20-inch swing; drill press to swing thirty-four inches, and medium-size shaping machine.

Machine Tools.—Robinson Manufacturing Co., H. C. Robinson, general manager, Muncy, Pa., is in the market for a second-hand cupola of about seven tons capacity per hour, machine shop and blacksmith shop equipment.

Mining Equipment.—J. M. Hutchins, Dahlonega, Ga., is in the market for mill supplies, such as shoes, dies, cams, screens, battery liners, etc.

Mining Machinery.—A. J. Muir, trustee for Muir Mining Co., Box 1029, St. Louis, Mo., wants catalogues and prices on lead and zinc mining, milling and concentrating, quarrying, hoisting, rock-sawing, turning and pulverizing machinery used in the manufacture of silicate of soda.

Moss-curing Machines.—W. A. Roberts, Eufaula, Ala., wants addresses of houses or factories selling machinery for moss-curing.

Oil-mill Machinery.—J. S. Barrow, Louisburg, N. C., wants addresses of manufacturers of cottonseed hullers and separators.

Pearl-button Machinery.—See "Button Machinery."

Pipe.—See "Electrical Machinery."

Pulleys and Shafting.—See "Saw-mill, etc."

Pulverizing Machinery.—See "Chalk Machinery."

Pulverizing Machinery.—See "Mining Machinery."

Pump.—See "Electrical Machinery."

Pump.—Wm. Minnigerode, Lynchburg, Va., wants a single-cylinder steam pump about two-and-one-half-inch suction and two-inch discharge.

Quarrying Machinery.—See "Mining Machinery."

Railway Equipment.—See "Electrical Machinery."

Railway Equipment.—Wright & Sons, Alexandria, La. (not Virginia, as stated during the week), want to lease for five years two and one-half miles of standard 50 or 60-pound T rails with spokes and splices, with or without a 30 or 40-ton locomotive, new or second-hand.

Railway Equipment and Materials.—Cuba Company, R. G. Ward, manager, Ciego de Avila, Cuba, is in the market for various classes of material and equipment used in railway construction and maintenance. Substantial catalogues and price-lists are requested.

Roofing.—See "Saw-mill, etc."

Salt-making Machinery.—See "Dryer."

Saw-mill.—L. H. Bruce & Co., Elkton, Va., wants to buy cut-off saw for sawing wood; prefers the saw set to swing to the wood.

Saw-mill, etc.—Croatan Lumber Co., Washington, N. C., is in the market for boilers, shafting, pulleys, belting, roofing, etc.

Silicate of Soda Machinery.—See "Mining Machinery."

Sugar Machinery.—See "Electrical Machinery."

Tank.—Alvin Etheredge, Saluda, S. C., wants prices on tank for holding cottonseed oil delivered at Johnston, S. C.

Tanks.—See "Electrical Machinery."

Tanks.—McNally Manufacturing Co., Norfolk, Va., is in need of second-hand oil tanks ranging in size from 12x12 to 20x20 feet.

Tile Machinery.—D. B. McWilliams, Rossfarm, Pa., wants addresses of manufacturers of tile machinery.

Vehicle Manufacturers.—W. A. Garland, Hendersonville, N. C., wants to purchase a second-hand 'bus or gloss-side wagonette.

Woodworking Machinery.—See "Machine Tools."

Woodworking Machinery.—Wm. Lyles, Sparta, Tenn., wants to buy stave machinery.

Woodworking Machinery.—J. W. Crew, Elamville, Ala., will need saw-mill, furniture and coffin machinery.

Woodworking Machinery.—Hunter Pope, Decatur, Ga., wants estimates on complete plant for manufacture of chairs.

Woodworking Machinery.—D. M. Blanding, Sumter, S. C., will probably want medium-size second-hand planer, slotted cylinder heads; give name of machine and other particulars.

Woodworking Machinery.—George Foundry and Machine Works, Rome, Ga., is in the market for a new or second-hand matching machine with head and knives to match

building material from one-half inch to two inches.

Woodworking Machinery.—Florida Paint Manufacturing Co., Jacksonville, Fla., is in the market for an upright boring machine with bits, rip saw, pony chaser, etc.

Woodworking Machinery.—N. S. Hunt, Neptune, Fla., will need 60-horse-power engine, circular saw-mill, capacity 15,000 to 20,000 feet; edger, three-saw shingle machine (hand), veneer machine, planer, double surfacer, belting and pulleys.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

New Corporations.

F. A. Mosier of Port, Okla., is interested in the bank recently organized in that town.

Arrangements are being made to organize a new bank at St. Joseph, La., with $25,000 capital stock.

A. Goodman is interested in the American Savings Bank & Trust Co. recently chartered at Memphis, Tenn.

W. D. Bettis and others have formed the Orange National Bank at Orange, Texas, with $50,000 capital stock.

David Starbuck is interested in the Perry County Bank, recently organized at Linden, Tenn., capitalized at $25,000.

The Palisade Loan Fund Association has been organized at Baltimore by S. H. Calkins and others with $208,000 capital stock.

The Central Insurance Co. of Kansas City, Mo., has been incorporated, with $25,000 capital stock, by Charles M. Baldwin and others.

The Sandercock-Williams Realty, Loan & Investment Co. has been organized at El Reno, Okla., with $500,000 capital stock, by J. O. Sandercock and others.

The Cordele National Bank, recently organized at Cordele, Ga., has absorbed the business of the People's Bank. It is capitalized at $50,000. R. L. Wilson is president.

Authority has been given the First National Bank at Chester, W. Va., to begin business with $25,000 capital stock. Frank W. Stewart of New Cumberland, W. Va., is one of the directors.

The Farmers and Merchants' Bank is the title of the institution recently organized at Lake City, Ark., with $20,000 capital stock. F. W. Taylor is president, and W. B. Armstrong, vice-president.

E. L. Foster has been elected president; C. M. Moore, vice-president, and E. F. Foster, cashier, of the Coal Creek Bank at Coal Creek, Tenn., which has begun business with $25,000 capital stock.

The Southern Investment Co., recently incorporated in Delaware, will have its principal offices at Savannah. W. W. Mackall of Savannah is president, and W. V. Davis, secretary. The capital stock is placed at $1,000,000.

The Equitable Trust Co., recently formed at Oklahoma City, Okla., will have $250,000 capital stock. Hon. Wm. E. Mason and Freeman P. Short of Chicago are interested in the company, which, it is stated, will also open a national bank at Oklahoma City with $200,000 capital stock.

New Securities.

The Bank of Amite City, La., has decided to increase its capital stock to $25,000.

The Farmers and Merchants' Bank of Elmo, Mo., has increased its capital stock from $10,000 to $20,000.

The issue of $19,000 in 4 per cent. refunding bonds of Buckhannon, W. Va., has been taken by the school fund of the State.

Thos. J. Balger & Co. of Chicago have purchased the issue of $15,000 in bonds of Sardis, Miss., at an interest basis of 4½ per cent.

Mr. John W. Dickey of Augusta, Ga., has purchased the issue of $173,000 in refunding bonds of Augusta. The securities bear 4 per cent. interest.

R. V. Montague & Co. of Kansas City, Mo., have purchased the issue of $8500 in 4½ per cent. bonds of Oconee county, Georgia, paying 102.676.

Proposals will be received until November 1 by George L. Gravely for $5500 in 6 per cent. improvement bonds of the town of Martinsville, Va.

The issue of $4800 in improvement bonds of Baird, Texas, will probably be placed on the market in the near future. The mayor may be addressed.

The issue of $65,000 in 4 per cent. improvement bonds of the city of Mobile, Ala., remain unsold. The city treasurer will give any particulars desired.

The town of Mineral Wells, Texas, will vote on October 29 on the question of issuing $12,000 improvement bonds. The mayor will give further information.

J. S. Drummond at Laurens will receive proposals until November 30 for the issue of $75,000 in 4 per cent. refunding bonds of Laurens county, South Carolina.

The amount of bonds to be issued by Lauderdale county, Mississippi, is $30,000. The board of supervisors of the county may be addressed at Meridian, Miss.

W. F. Fraser may be addressed relative to the issue of $13,500 in 5 per cent. improvement bonds of the town of Mansfield, La., for which bids will be received until October 30.

Bids will be received until December 3 for the issue of $418,000 in 3½ per cent. refunding bonds of the city of Atlanta, Ga. Thomas J. Peeples, city treasurer, may be addressed.

It is probable that the issue of $40,000 in 4 per cent. improvement bonds recently decided upon by the city of Columbus, Ga., will be placed on the market in the near future. Address the mayor.

The town of Louisburg, N. C., has voted in favor of issuing $30,000 in improvement bonds, and they will probably be placed on the market in the near future. The mayor may be addressed.

W. W. Bird, county treasurer, may be addressed at Crawfordsville, Ga., relative to the issue of $22,500 in 4½ per cent. bonds for sale by Taliaferro county. Proposals will be received until December 1.

Proposals will be received until November 15 for the issue of $400,000 in 5 per cent. improvement bonds of the city of Jacksonville, Fla. B. F. Dillon, chairman of the board of bond trustees, may be addressed.

The issue of bonds offered by the town of Newberry, S. C., will bear interest at the rate of 4½ per cent. Bids will be received for the issue, which amounts to $25,000, until October 30. W. S. Langford may be addressed.

Financial Notes.

The Bank of Brookhaven, Miss., has increased its capital stock to $50,000 and absorbed the People's Bank, which has been in process of formation.

A report from Louisville, Ky., is to the effect that the Fidelity & Trust Co. and the Louisville Trust Co. will be consolidated, with an aggregate capital of $2,500,000.

The American Bankers' Association at its annual meeting last week elected Myron G. Herrick of Cleveland, Ohio, president, and Caldwell Hardy of Norfolk, Va., first vice-president. The trust-company section elected Mr. John Skelton Williams of Richmond, Va., chairman of the executive committee.

For the eight months to September 30 the Lexington (Ky.) Railway Co. shows net earnings of $72,504, against $64,353 for the same period of last year, an increase of $8151. The details of this statement are as follows:

	1901.	1900.	Inc.
From railway—			
Gross earnings	$78,153	$72,428	$5,725
Operating expenses	49,846	45,751	4,095
Net earnings	$28,307	$26,677	$1,630
From electric-light plant—			
Gross earnings	$52,931	$44,920	$8,011
Operating expenses	34,157	27,023	7,134
Net earnings	$18,774	$17,897	$877
Ice department—			
Gross earnings	$60,281	$52,414	$7,867
Operating expenses	34,858	32,636	2,222
Net earnings	$25,423	$19,778	$5,645

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending October 22.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	...	91
Aiken Mfg. Co. (S. C.)	90	93
American Spinning Co. (S. C.)	...	101
Anderson Cotton Mills (S. C.)	120	130
Arkwright Mills (S. C.)	117	...
Augusta Factory (Ga.)	70	73
Avondale Mills (Ala.)	82½	...
Belton Mills (S. C.)	102	...
Bennettsville Mfg. Co. (S. C.)	89½	90½
Cabarrus Cotton Mills (N. C.)	120	130
Clifton Mfg. Co. (S. C.)	175	...
Clinton Cotton Mills (S. C.)	121	...
Courtenay Mfg. Co. (S. C.)	...	117½
Dallas Mfg. Co. (S. C.)	91	100
Darlington Mfg. Co. (S. C.)	92	96
Eagle & Phenix Mills (Ga.)	100	...
Enoree Mfg. Co. (S. C.)	...	112½
Enterprise Mfg. Co. (Ga.)	...	100
F. W. Poe Mfg. Co. (Ga.)	116½	121
Gaffney Mfg. Co. (S. C.)	113	114½
Granby Cotton Mills (S. C.)	100	...
Granby Cotton Mills (S. C.) 1st Pfd.	101	103
Graniteville Mfg. Co. (S. C.)	160	165
Greenwood Cotton Mills (S. C.)	100½	102
Grendel Mills (S. C.)	100	103
Henderson Cotton Mills (N. C.)	120	125
Henrietta Mills (N. C.)	...	200
John P. King Mfg. Co. (Ga.)	95	...
Langley Mfg. Co. (S. C.)	104	110
Laurens Cotton Mills (S. C.)	139	145
Lockhart Mills (S. C.)	...	108
Louise Mills (N. C.)	...	100
Lynchburg Cotton Mills (Va.)	125	130
Lynchburg Cotton Mills (Va.) Pfd.	145	150
Manchester Cotton Mills (S. C.)	...	114
Mayo Mills (N. C.)	150	...
McColl Mfg. Co. (S. C.)	...	100½
Newberry Cotton Mills (S. C.)	114	...
Odell Mfg. Co. (N. C.)	99	101
Orr Cotton Mills (S. C.)	...	103
Pacolet Mfg. Co. (S. C.)	...	200
Pelzer Mfg. Co. (S. C.)	172	180
Piedmont Mfg. Co. (S. C.)	...	180
Raleigh Cotton Mills (N. C.)	116	...
Richland Cotton Mills (S. C.)	106	108
Richland Cotton Mills (S. C.) Pfd.	100	102¾
Roanoke Mills (N. C.)	90	100
Sibley Mfg. Co. (Ga.)	75	78
Southern Cotton Mills (N. C.)	96	100
Spartan Mills (S. C.)	130	138
Trion Mfg. Co. (Ga.)	125	135
Tucapau Mills (S. C.)	128	...
Union Cotton Mills (S. C.)	...	138
Union Cotton Mills (S. C.) Pfd.	100½	105½
Victor Mfg. Co. (S. C.)	106	113
Warren Mfg. Co. (S. C.)	90	...
Warren Mfg. Co. (S. C.) Pfd.	105	...
Washington Mills (Va.) Pfd.	100½	102
Whitney Mfg. Co. (S. C.)	...	120
Wilmington Cot. Mills (N. C.) Pfd.	100	105
Wiscassett Mills (N. C.)	...	120

A Valuable Handbook.—The Cambria Steel Co. of Philadelphia, Pa., has recently published a new edition of its handbook of information for engineers, which is one of the most valuable technical works issued in this country. The latest edition comprises 428 pages, has been carefully compiled, and its statistics as well as other information are prepared by eminent authorities on the subject referred to. Incidentally it may be said that the Cambria Steel Co. is making a specialty of manufacturing structural steel, and has supplied the material for a number of the largest buildings in the United States, including all kinds of contracts, from factories and depots to public buildings.

Over One Hundred Courses.—The International Correspondence Schools of Scranton, Pa., have so expanded their work that now they are giving instruction in over one hundred courses. Recent additions are of the studies of French, German and Spanish, conducted almost entirely by means of the phonograph and the Schools' specially-prepared papers. The lessons are sent in the shape of phonographic records and pamphlets, each record bearing the voice of the native instructor. The student recites his lessons into the phonograph, and thus the instructor is able to note his actual progress. A brochure has recently been published by the schools in reference to these languages, which will be sent on application.

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Pennsylvania Railroad Special Excursions to Pan-American Exposition.

The Pennsylvania Railroad Co. will run special excursions to Buffalo on account of the Pan-American Exposition from Baltimore and adjoining territory on September 26, October 2, 8, 17, 23 and 29. Round-trip tickets, good going only on special train leaving Baltimore, Union Station, 9.05 A. M., and York 10.43 A. M., and on local trains connecting therewith, and good to return on regular trains within seven days, including day of excursion, will be sold at rate of $10 from Baltimore, and proportionate rates from other points. Tickets will be good for passage in parlor cars and sleeping cars on payment of usual Pullman rates. Stop of thirty minutes will be made at Williamsport for luncheon. For specific time and rates, consult local ticket agents. †

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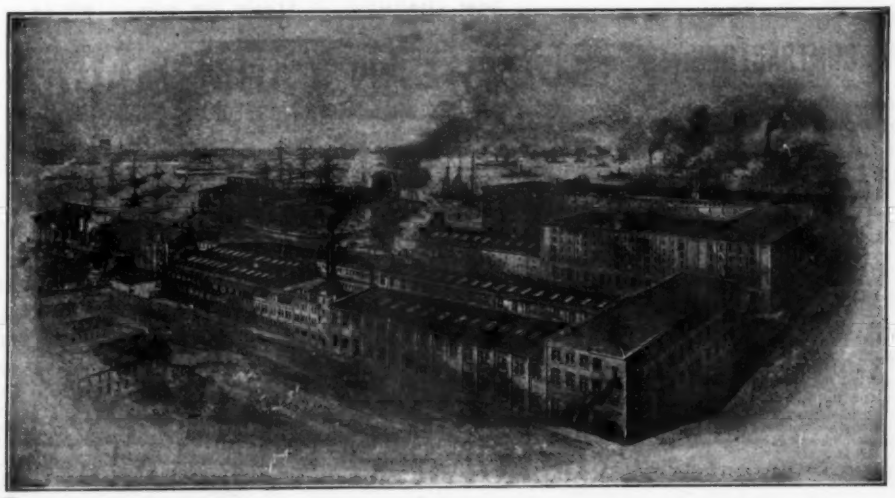

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PROPOSALS.

ENGINEER OFFICE, U. S. Army, 166 Granby Street, Norfolk, Va., September 30th, 1901. Sealed proposals for constructing wharf at Fort Wool, Va., will be received here until 12 M., November 4th, 1901, and then publicly opened. Information on application.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., October 9, 1901.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 28th day of October, 1901, and then opened, for the installation of a conduit and wiring system for the U. S. Court House and Post Office building at Altoona, Pa., in accordance with the drawings and specification, copies of which may be obtained at this office or at the office of the Superintendent of construction at Altoona, Pa., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., October 9, 1901.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 8th day of November, 1901, and then opened, for furnishing the heating apparatus complete in place for the U. S. Court House and Post Office building at Altoona, Pa., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Altoona, Pa., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

THE County Board of Commissioners of Spartanburg County, South Carolina, will receive bids until December 3d, 1901, for $50,000.00 of 20-year 4 per cent. coupon bonds of said county, bearing date January 1, 1902, interest payable 1st January and 1st July.

The right to reject any and all bids is reserved. These bonds are non-taxable.

The present bonded debt of the county is $213,800.00, and the assessed value of property is $11,803,371.00. Copy of act authorizing bonds and any further information can be had by addressing

J. D. LEONARD,
County Supervisor, Spartanburg, S. C.

Sale of Martinsville (Va.) Bonds
$5,500 Improvements.

Sealed bids will be received until November 1st, 1901, at 12 M. for the purchase of $5,500 six per cent. (6 per cent) thirty-four year (34) Improvement Bonds, dated November 1st, 1896, and being in denomination of $500.00 each. Right is reserved to reject any and all bids. A certified check for 5 per cent of bid is required with bids, which should be directed to GEORGE L. GRAVELY, Martinsville, Virginia, By order of Town Council.
A. S. GRAVELY, Town Clerk.

Sealed Proposals

will be received at the office of the Board of Public Works of Newberry, S. C., until 6 p. m., October 30, 1901, for Twenty Five Thousand Dollars ($25,000), of 4½ per cent. Bonds, running 40 years with privilege of redemption at 20 years. Interest payable annually on January 1st of each year.

The right is reserved to reject any or all bids.

W. S. LANGFORD,
Secretary.
Board of Public Works.

Asheville, N. C., Bonds
FOR SALE.

SEALED PROPOSALS will be received by the City Treasurer until October 25th, at 8 P. M., for the purchase of $10,000 of School Building Bonds.

Dated November 1st, 1901; interest 4 per cent. semi-annual.
Maturity—November 1st, 1931.
Payable—New York or Asheville.
Denomination—$500 or $1000 each.
Deposit 1 per cent. or $100.
Default—City never defaulted on interest or principal.
Assessed valuation, $5,046,975.
Real valuation, 8,000,000.
Bonded debt, 781,000.

WILLIAM R. HESTON,
City Treasurer.

NOTICE TO CONTRACTORS.

TALLAHASSEE, FLORIDA, Oct. 1, 1901.

The Capitol Commission, appointed to make additions and alterations to the State Capitol Building of Florida, invites sealed proposals for the erection and completion of the work according to the plans and specifications prepared by Architect Frank P. Milburn, Columbia, S. C.

Plans and specifications and forms of contract and bond required will be on file at the State House in Tallahassee, and at the architect's office in Columbia, S. C., on and after October 14, 1901.

Each bidder will file with his bid a certified check on a well known bank in Florida for the sum of five thousand dollars, made payable to the State Treasurer of Florida, as a guarantee that if his bid be accepted he will enter into contract at once, and upon entering into the contract make an acceptable bond in the sum of twenty-five thousand dollars for the faithful performance of his contract. Should the bidder fail to enter into contract and make the bond within fifteen days after acceptance of his bid, the check will be forfeited as liquidated damages for the delay.

All bids to be filed not later than twelve o'clock noon, November 14, 1901.

The Commission reserves the right to reject any and all bids.

W. S. JENNINGS, Governor,
And Chairman of Capitol Commission.

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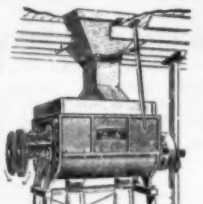

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It will help you to sell Farm and Garden Implements and Machinery, Breeding Stock (Cattle, Horses, Sheep, Swine, Poultry), Stock Remedies, Farm and Stock Appliances and Specialties of every sort, Dairy Supplies, Seeds and Nursery Stock, Fertilizers, Household Articles and everything needed by the farmer or his family.

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	No. of Gal.	Value per Gal.	Value finished product 100 Bbls.	Value per gal. of oil, with which it will be in competition.
10 per cent. Asphalt—3,360 lbs. (8 lbs. to the gallon), at $30.00 per ton	420	12c.	$ 50.40	15c.
15 per cent. Heavy Cylinder	630	30c.	189.00	35c.
18 per cent. Heavy Engine Oil	756	15c.	113.40	20c.
17 per cent. Machine Oil	714	12c.	85.68	16c.
21 per cent. Intermediate and Neutral (Average)	882	4c.	33.28	4c.
15 per cent. Kerosene	630	6c.	37.80	6c.
3 per cent. Naphtha	126	7c.	8.82	7c.
1 per cent. Loss	—	—	—	—
100 per cent. Total Value 100 Bbls			518.38	
Total Value Output Refinery capacity 2,500 bbls. daily				$12,959.50
Cost Crude Oil—20c. per bbl			$ 500.00	
Cost refining 2,500 bbls. at $1.00 per bbl			2,500.00	
Cost barrels and packages			1,250.00	
Cost Marketing, Insurance, Interest, Dspreciation, Repairs, Office Expenses, Salaries, etc			2,500.00	
Total Daily Cost				6,750.00
Daily Profit				$6,209.50
Profit for years' operation—300 days or 37.25 per cent. on total capitalization of $5,000,000.00.				$1,862,850.00

The Company is erecting a refinery of a daily capacity of 2,500 barrels of crude oil, and the figures given above, based on the purchase of crude oil from other producers, show the possible profits in a year's operation.

The Company will produce its own crude oil, as it owns 100,000 acres of oil lands selected by Dr. Forward himself, on which there are now nine complete drilling outfits at work, two of them on Spindle Top Hill. The Company already controls a production of over 100,000 barrels per day, and is arranging for reserve tankage holding a fifteen years' supply.

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Make checks payable to WALTER S. LOGAN, Attorney, and send to the FORWARD REDUCTION COMPANY, 27 William Street, New York.

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27 William Street, New York, N. Y.

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SECRETARY AND TREASURER: **L. V. DENIS, Cleveland, Ohio.**

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11x18" double cylinder, double drum; 8½x10" double cylinder and four drums for hoisting and swinging derricks; 7½x10" two 6½x10" with boiler; 5½x7" double cylinder, double drum, with boiler; 8¼x10" double cylinder, single drum; 8¼x10" single cylinder, single drum, with boiler; 8¼x10" double cylinder, double drum four spools erectors' engine; 6x12" single cylinder, single drum, with boiler; 7x10" and two 6¼x8" double cylinder, double drum.

WOOD-WORKING MACHINERY.

24" planer and matcher; 7" four-sided moulding machine; 8" Butler stickers, two; Butler tennon machine; Smith sash and door tennon machine; Walker self-feeding panel raiser; Fay single spindle shaper; foot-power mitre machine; jig saws, wood turning lathes; speed lathes, mandrils with stands; emery wheel stands; power grindstone, etc.

LOCOMOTIVES.

One 15x18" standard gauge, saddle tank; one 10x16" Porter, 3' gauge, four wheels and tender; one 9x16" Vulcan, standard gauge, saddle tank.

STEAM SHOVELS.

One yard Little Giant, 1½ yard Bucyrus—standard gauge.

ROCK CRUSHERS.

Three 15x9 and 10x4 Blake crushers, horse road steam roller, one 1½-ton grooved.

Steam, Gas and Gasoline Engines, Boilers, Etc., Etc.

CARLIN MACHINERY & SUPPLY COMPANY, Lacock and Sandusky Sts., ALLEGHENY, PA.

FOR QUICK DELIVERY.

18", 22", 24", 26", 28", 30", 32" and 36" Lathes. Any length.

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MENGEL'S MACHINERY EXCHANGE, **26** East Balderston Street.
FOR SALE CHEAP—All sizes STEAM AND GAS ENGINES, **50**-H. P. LOCOMOTIVE, **60**-H. P. HORIZONTAL, **100, 40, 25, 15, 9** AND **4**-H. P. VERTICAL BOILERS, **22x30 150**-H. P. FARQUHAR PISTON VALVE ENGINE, **5**-H. P. VERTICAL ENGINE and BOILER combined, **20**-H. P. HOISTING ENGINE, OTIS **25**-H. P. STEAM ELEVATOR ENGINE, POWER WORM GEARED FACTORY ELEVATOR, TWO REVOLUTION and DRUM CYLINDER PRESSES, JOB PRINTING PRESSES, all sizes and makes; complete STEREOTYPE OUTFIT, **42"** HOE POWER PAPER CUTTER, Sheridan Extra Heavy Toggle Joint SMASHING PRESS, Lot of TYPE, IMPOSING STONES, STANDS and CASES, large lot of standard makes of PRINTING INKS at ½ price, WOODWORKING MACHINERY, SHAFTING, BELTING, PULLEYS and HANGERS. Always positive bargains at MENGEL'S MACHINERY EXCHANGE, **26** E. Balderston St., near Light.

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BEAM ENGINES.

14"x22"; slide valve; outboard bearings; dia. of crank shaft, 5"; flywheel, 7' 2" diam.; driving pulley, 4' 2" dia.; 20" face.
12"x18"; slide valve; outboard bearing; dia. of crank shaft, 4½"; flywheel, 5' 6½" dia.; driving pulley, 3' 6" dia.; 16" face.
12"x18"; rotary valve; outboard bearings; dia of crank shaft, 4½"; flywheel, 5' 9" dia.; driving pulley, 4' dia.; 14" face.
All in good order. Full particulars given. May be seen in N. Y. City. Address
Chief Engineer,
CONSOLIDATED GAS CO. OF N. Y.
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1 **Fairbanks Gasoline Engine** (30 horse power). This engine is new and complete in every particular, including a 40-gallon galvanized tank, 1 box batteries, fixtures, piping, belting, and an extra 525-gallon galvanized gasoline tank. Will sell at a great bargain. 1 Steam Fire Engine, late from Baltimore department. 4 Hoisting Engines, 12, 15, 18 and 25-horse power respectively. A number of single and duplex Steam Pumps. Cistern, Deck and Deep Well Pumps (new). General machine work and repairing. I make a specialty of repairing Steam Pumps, High-speed and Gasoline Engines.
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WANTED.

800 Kilowatt of second-hand direct current 225 250 Volt Dynamos, varying from 50 to 250 Kilowatt capacity. Also one 100 Kilowatt, 500 volts.
Address, with full particulars, as to condition, dimensions and prices,
W. S. MALLORY,
ORANGE, N J.

NAGLE ENGINES AND BOILERS,
WM. MINNIGERODE, Agent,
LYNCHBURG, VA.
DEALER IN
Rails, Rolling Stock and Machinery,
New and Second Hand.

SECOND-HAND.

We have a number of Dynamos and Motors, which we have displaced with larger units. These are all overhauled and guaranteed to be in good working order before shipping. The prices are very moderate indeed.
Your correspondence is solicited.
THE W. C. BENBOW CO.
Manufacturers' Agent, COLUMBUS, OHIO.

FOR SALE.

Second hand Corliss Engines,

100, 150, 200, 350, 500 and 800 H. P. Boilers, all sizes. Steam Pumps in great variety. Send for bargain list of second-hand machinery.
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67 Sudbury Street, BOSTON, MASS.

SECOND HAND
Electrical Machinery
BOUGHT AND SOLD.
Correspondence solicited.
THOMPSON, SON & CO.
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HIGH SPEED ENGINE BARGAINS.

No.	H.P.	Maker.	Cylin.	Speed.	Whls.
2	150	Buckeye "C"	14¼x16	240	72x15
4	150	Westingh'se	13&22x13	290	
1	125	"	11&19x11	300	
2	75	"	12x11	300	
1	75	N. Y. Safety	12x12	300	
1	65	Russell Aut.	10x14	275	
1	50	Atlas "B"	10x12	300	
1	40	Arm. & Sims	8¼x12	300	

CAMP ENGINEERING CO., 47 W. Lake St., Chicago, Ill.

BARGAINS IN

Machinery and Supplies

No. **ENGINES.**

375. 13x12 Ball automatic.
60. 13x34 Putnam basin bed auto. engine.
75. 20x30 slide valve.
76. 18x28 Nicol-Burr.
1044. 16x28 slide valve.
132. 16x24 slide valve.
137. 6 8x12 center crank Tifft engines.
138. 6 9x12 center crank Tifft engines.
148. 12x20x12 Westinghouse engine.
163. Cross compound Armington & Sims, 13½ x20¼x15.
173. 13x34 Fitchburg engine.
192. 1 New York Safety auto. 11x12.
193. 12x12 Armington & Sims automatic.
206. 14x24 slide valve.
210. 11x10 Westinghouse.
213. 12x24 slide valve.
217. 15x16 Ball automatic.
219. 11x20x14 McEwen tandem comp.
220. 11x9x11 Westinghouse engine. 13x22x13.
222. 14x24x14 Westinghouse engine.
223. 23x36 Wright-Corliss engine.
226. 9x8 Westinghouse.
235. 20x40 Nordburg.
297. 8½x10 Taylor-Beck automatic.
299. 1 pair Williams auto. engines, 500 H. P.
750. 5x4 Westinghouse, Jr.
846 1 6x7 vertical automatic.
851. 1 7x7 horizontal automatic.
0x9. 18x30x16 Westinghouse.
047. 22x60 Harris-Corliss.
0x10. 16x36 Hoffman & Billings Corliss.
a1. 10x14 center crank, slide valve.
a2. 10x15 center crank, slide valve.
a3. 11x16 center crank, slide valve.
a4. 11x14 center crank, Atlas.
a5. 9x12 center crank, Erie City.
a6. 18x24 side crank, Atlas.

No. **GASOLINE ENGINES.**

154. 2 50 H. P. Otto gas or gasoline.

No. **HOISTING ENGINES.**

810. 10x16 double drum, double cylinder Mundy hoisting engine.
755. 11x18 double drum, double cylinder Mundy hoisting engine.
7 3. 8¼x12 double cylinder, single drum hoisting engine.
377. Locomotive boiler with hoisting rig attached.
108. 8x12 Webster. Camp & Lane double cylinder, single drum.
6x10 single cylinder vertical engine and boiler.
55. 8x12 single cylinder hoisting engine and boiler.
77. 5x7 elevator hoisting engine, double cylinder, with worm gear.
33. 1 elevator hoisting engine, 7x10, double cylinder.
174. 8x12 double cylinder hoisting engine, belt driven.

No. **ELECTRICAL MACHINERY.**

812. 1 30-light arc dynamo.
813. 1 45-light arc dynamo.
814. 1 50 K. W. Westinghouse alternator.
816. 1 50-light arc dynamo.
818. 1 electric elevator hoist with dynamo, on one base, complete.
820. 1 60 K. W. Ft. Wayne alternator.

No. **BOILERS.**

666. 75 H. P. Heine safety boiler.
664. 48x12 tubular, no dome.
469. 4 54x15, no dome.
004. 175 H. P. Heine water tube.
005. 120 H. P. Sterling water tube.
006. 54x14, tubular.
675. 48x12 tubular, no dome.
676. 60x12 vertical fire box.
681. 66x12 vertical fire box.
686. 66x16 tubular.
688. 66x18 tubular.
695. 48x10 vertical fire box.
702. 48x10 vertical fire box.
704. 60x16, no dome, tubular.
708. 60x14 tubular.
711. Marine fire box, 15 H. P.
716. 4 72x20 tubular, no dome.
719. 100 H. P. internally fired.
580. 15 H. P. water-tube marine boiler.
580. 20 H. P. water-tube marine boiler.
007. 1 80 H. P. locomotive fire-box boiler.
008. 1 100 H. P. locomotive fire-box boiler.
009. 50 vertical, from 2 to 20 H. P.
010. 20 locomotive fire-box boilers, from 10 to 40 H. P.
0x1. 200 H. P. internally fired marine.
0x2. 125 H. P. Locomotive fire box.
0x3. 150 H. P. Wicks horizontal safety water tube boiler equipped with a Murphy automatic stoker. Both boiler and furnace in excellent condition. Boiler has 86 4-inch tubes 18 feet long. Full information on application.

No. **PUMPS.**

201. Deep well pumps, 6x18, 10x36.
225. Worthington duplex compound, 8x12, 8½x10.
231. Worthington duplex compound, 10x16 10¼x10.
295. 5 hand power Diafra bilge pumps.
x 1. 4 centrifugal pumps, 16" suction, 12" discharge.
x 2. 24x12x24 Gordon duplex pump.
354. Vertical centrifugal pump, 3-in. discharge.
366. 1 Knowles 7½x7x10 single acting pump.
895. 7½x5x10 single acting pump.
893. Deane single acting 7x6x8 pump, fly wheel type.
888. 1 Smith-Vaile 10x6x12 pump.
928. 1 vacuum pump, 6x10x12.
933. 1 Worthington single action 7x6x8 pump.
890. 1 Norwalk pump, 10x5¼x12.
882. 1 Norwalk pump, 12x7x16.
881. 1 Crane crank and fly wheel pump.
883. 1 Blake triplex, 8x6x9 pump.
9 0. 1 fire pump, 12x7x10.
934. 1 Worthington single acting 16x7x10 pump.
879. 1 Knowles single acting No. 5 pump, 7x4½x9.
924. 1 Worthington duplex pump, 9x5¼x10.
925. 1 Gordon duplex, 9x5¼x10.

No. **AIR COMPRESSORS.**

337. 1 straight line steam driven air compressor, made by National Drill & Compressor Co., 20x22x24.
890. 1 5¼x7x10 Norwalk air compressor.
896. Hall duplex air compressors, steam driven, 10x12x12, 6x8x8 and 8x10x10.
1 Hall duplex belt driven air compressor, 6x6.
902. 1 Hall duplex air compressor, 7x8x9.

No. **IRON WORKING TOOLS.**

3. 1 screw punch, hand power, punch holes ⅝ to 3-in.
16. 2 circular band saws, 8-in. blade.
68. 1 8-in. Fay re-saw.
100. 1 hydraulic tank riveter.
239. 2 iron planers, 18x18x5, 18x18x6.
1 double spindle drill press, Pratt & Whitney.
2. 1 horizontal automatic boring bar, will bore cylinder 24-in.
4. 18x18x4 iron planer.
128. 1 horizontal milling machine.
236. 1 iron planer, 34"x12 ft. long.
256. 1 iron planer, 20x20x4 ft.

No. **MISCELLANEOUS.**

8. 1 hand lever gap shear.
15. 1 hand power sidewalk elevator hoist.
19. 2 Raymond ore crushers and pulverizers.
33. 24-in. Jones turbine water wheel.
35. 30-in. " " "
59. 1 hand fire engine on wheels.
70. 2 wire straighteners.
321. 1 Hotchkiss belt driven hammer.
330. Buffalo jet condenser—200 h. p.
843. 78 5-in. fire plugs.
294. 1 Wells light.
301. 1 small Wells light.
326. 1 ¾ in. Worthington water meter, also a 3-in. meter.
339. 1 set plate rolls, geared—38-in. wide.
365. Hot blast apparatus with direct connected fan and engine.
378. 1 Gates stone crusher.
756. 1 Niagara power shear—4½-ft. knife.
835. 1 spur gear wheel, 12 ft. 8-in. diam., 16-in. face with pinion.
841. 1 hydraulic press.
635. 1 power rattler.
834. 1 Rogers locomotive.
No. 9 cupola blower.
351. 1 Buffalo blower, No. O, direct connected water motor.
052. 100 steam traps, from 4 to 12-in. diam.
844. 5-ton locomotive traveling crane.
744. 10-ton locomotive traveling crane.
0x3. Bullock champion prospecting dynamo, core drill, complete.
0x4. Tank 78"x50 ft.
0x5. 12 iron columns 50 ft. long x 18" diameter made of channels.

ICE MACHINES.

15-ton Murray, 30-ton refrigeration.
40-ton DeLaverne.
35-ton Allis.
50-ton Boyle.
25-ton Lindy.

ROOFING GLASS.

50,000 ft. ribbed and rough new roofing glass, 18 to 50 inches wide.

No. **ODDS AND ENDS.**

030. 2000 ft. of 1½-in. wire cable.
031. 500 ft. of 2¼-in. cable.
032. 1000 ft. of 2¼-in. cable.
033. 1000 ft of 1¼-in. galvanized guy rope.
594. Fly wheel, solid rim, 10-in. diam., 10-in. bore, rim 9-in. face.
500,000 ft. of standard black wrought iron pipe, from ⅛ to 12-in. diam.
5 carloads of steel sheets, from 8 to 16 gauge.
All kinds of plumbing material, including bath tubs, lavatories, sinks and closets.
We carry a complete stock of hardware, including such items as horseshoes, horseshoe nails, hammers, hatchets, axes, handles, &c. Also just received 5 carloads of wire nails.

OUR CATALOGUE No. 239 contains an itemized and complete list of our stock on hand.

Chicago House Wrecking Co.

W. 35th and Iron Streets, CHICAGO.

STRUCTURAL IRON WORK
For Immediate Delivery.
EYE BEAMS, from 3 in. to 20 in.
CHANNELS, from 1¾ in. to 15 in.
ANGLES, 1 in. to 6 in.
FLATS & BARS up to 20 in. wide.
ROOF TRUSSES, GIRDERS, COLUMNS, and **BRIDGES** designed and built.
Bridge Railings a Specialty.
BELMONT IRON WORKS
PHILADELPHIA, PA.

For Sale—Engines, Boilers, Dynamos, &c.

1 700-light **Dynamo,** 110 volts, $325. Also some smaller dynamos down to 30-light machines. **Engines**—1 50 H. P., $300. 1 100 H. P., $425. 1 125 H. P., $600. 2 150 H. P., $750 each. 2 350 H. P., $2250 each. Also some others. Feed Water Heater, Berryman, about 700 H. P., $250. Alternating Dynamos—600-light, $285. 2 1300-light, $385 each. Boilers, Pulleys, Pipe Shafting, etc. Some big bargains. Generator—100 K. W., 550 volts, slow speed, $675.
American Electric Supply & Mfg. Co.
72 Thames Street, NEW YORK CITY.

FOR SALE.
No. 3 DECK SCOW 100'x29'x9'8"
No. 5 DECK SCOW 111'4"x32'11"x10' 3"
No. 4 DERRICK SCOW 101'x31'x10'
FLOATING PILE DRIVERS
No. 2 42'4"x20'4"x4'4" No. 3 55'8"x 20'10"x5'0" No 8 50'9"x23'0"x6' 3" No 9 50'9"x22'6"x4'2"
2 OSGOOD DREDGES
J. C. SAXTON, 18 Broadway, New York, N. Y.

FOR SALE—New or Second-Hand

STEEL

RAILS

Light or heavy Section. In carload lots or larger quantities. We buy old rails.

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3 13x5 Blaisdell lathes, elevating rest.
5 13x6 Blaisdell lathes, elevating rest.
1 14x5 Blaisdell lathe, elevating rest.
1 14x6 Blaisdell lathe, elevating rest.
1 14x6 Ames lathe, elevating rest.
3 14x6 Flather lathes, plain rest.
1 14x8 Putnam lathe.
1 15x6 Prentice lathe, compound rest.
6 15x6 Blaisdell lathes, elevating rest.
1 20x8 Putnam lathe, compound rest.
1 22x9 New Haven lathe, compound rest.
1 30x30x10 Putnam planer.
1 36x36x10 Wilson planer, two heads.
1 36x36x16 Hughes & Phillips.
1 15" Smith & Mills shaper.
1 26" Lodge & Davis shaper.
4 20" Barnes rd. base, power-feed drills.
1 25" Barnes back-geared, power-feed drill.
1 26" Prentice back-geared, power-feed drill.
1 36" Snyder back-geared, power-feed drill, geared revolving table.
1 40" New Haven back-geared, power-feed drill.
1 No. 12 Brown & Sharpe miller.
4 No. 3½ Garvin plain, back-geared millers.
1 No. 15 Garvin plain, back-geared miller.
1 five-foot Niles vertical boring mill, 1 head.
1 Alligator shear, capacity 1½ round.

THE S. M. YORK MCHY. CO.
CLEVELAND, OHIO.

FOR SALE.

One pair of 20x60 Harris-Corliss Engines, $3000.
One practically new 20x60 Harris-Corliss Engine, $1200.
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One 12x36 Swampscott-Corliss Engine, $650.
One 18x42 Wheelock Engine, late pattern, $900.
One 18x48 practically new 4-valve Engine, $500.
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Two 150 H. P. Manning Vertical Boilers, insurance company will allow 115 lbs., $500 each.
Three 60x20' 8" Hor. Tubular Boilers, 76-3¼" tubes, insurable 125 lbs., $400 each.
127'-40" 12-ply Giant Brand Revere Belt.
One No. 8 Cyclone Dust Collector, 12" inlet.

F. H. DAVIS & CO.
52 State Street, BOSTON, MASS.

EQUIPMENT FOR SALE.

CASH OR EASY PAYMENTS.

Locomotives, box, flat, gondola and logging cars, standard and narrow gauge; Climax geared locomotives, all gauges.

Write for description and prices.

Special Bargains.

South Side Alley L engines, $2500 each; 34-foot standard gauge flat cars, 42-ton standard gauge Mogul locomotives, 25-ton standard gauge box cars. Several iron truss bridges, spans from 30 to 100 feet.

F. M. PEASE, Incorporated,
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FOR SALE.

Five Station Thomsom Recording Wattmeters, for Series Arc Light circuits; sizes as follows:

2 65-Light, 9.6 Amperes.
2 65-Light, 6.6 Amperes.
1 35-Light, 6.6 Amperes.

These meters are very accurate, were used eight months, are in perfect condition, and complete with resistance boxes; have taken out our high tension circuit, hence sale at a special bargain.

The Dearborn Power Company,
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ENGINES.

22"x42" Wright Corliss.
14"x30" Horizontal Slide Valve.
10"x20" Supplee Horizontal.
8"x 7" Upright Yoke Engine.
4½"x7" Upright Oscillating.

For sale cheap. For further particulars and prices apply to

POULTERER & CO.
410 Bullitt Building, PHILADELPHIA, PA.

Engine Bargains

100 h. p. 12x24 Buckeye Automatic.
100 h. p. 12x20 Rice Automatic.
150 h. p. 16x42 Fraser & Chalmers Corliss.
150 h. p. 14x30 Cummer 4 valve Automatic.
250 h. p. 12x22x18 Payne Tandem Cpd. Auto.
65 h. p. 12x24 Cooper Slide Valve.
50 h. p. 12x18 Slide Valve.
14x7x10 Smith-Vaile Fire Pump.
200 h. p. Baragwanath Heater.
45 h. p. 11½x18 Slide Valve.
60x16 ft. Tubular Boiler.
200 h. p. Stillwell-Bierce Heater.

The above are all in first-class condition and ready for shipment.

A. L. DAWSON & CO.,
27-31 W. Washington St., CHICAGO, ILL.

Contractors' Outfit

FOR SALE.

1 1000-ft., 1¾-in. Sherman Cableway, with Lambert engine, complete.
Stiff Leg, Guy and Breast Derricks, hand and steam power.
Traveling Derrick, Byer's.
Concrete Mixer, power.
Horizontal Boiler, 40 H. P.
"New Ingersoll" Drills E 9, new and second-hand.
Pile Driver. Bucyrus Dredge.
Austin "New Era" Graders and Dump Wagons, slightly used
Wheel and Drag Scrapers, used less than one month.
Horse and Mule Harness.
Pipe Fitting and Machine Shop Outfit.
Plows, Shovels, Small Tools, etc.

Machinery located at Trenton Falls, N. Y.; Rome, N. Y., and Wyoming, Ill.

For particulars, enquire of

The Warren-Burnham Co.,
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Bargains in Machinery.

One 20x40x36 Wright-Corliss Tandem Compound Corliss Engine, with pulleys 18'x42" face and 16'x32" face
One 18¼"x34x42 Fitchburg Tandem Compound Engine, with pulley 18'x40" face.
One 18x32 Porter-Allen Engine. Also several others from five horse power up of different styles.
Five 16x24 Standard Gauge "American Type" Locomotives.
Also "CONTRACTORS' PLANTS for sale or rent."
Correspondence solicited.

GRANT & WILLIAMS,
Park Row Building, NEW YORK.

FOR SALE.

Can Ice Making Machinery,

INSTALLED BY

YORK MANUFACTURING CO.,
(60 Ton Daily Capacity)

complete with 2 Compound Compressors, 30 ton each. Distilling Tanks, Receivers, Boilers, all Piping, Dynamo and Engine for Electric Lighting and Driving Travelling Cranes for handling cans. About 1500 cans, used 2 years, and can be bought right, either to be used on premises or removed. For full particulars, address,

S. T. LUND,
120 High Street, BOSTON, MASS.

New and Second-Hand

Iron Tools and Woodworking Machinery

Corliss and Double Valve Engines for Trolley Roads and Electric Lighting Stations.

H. C. BAKER & CO.,
114 N. 3d Street, Philadelphia, Pa.

FOR SALE.

Lot of Boilers, Engines, Lathes, Planers, Drill-Presses, 1 Large Fire Pump, Steam Pipe, all sizes, and about 500 Tanks of different sizes.

WILLIAM ECKBOLD'S SONS,
711 E. Girard Ave. PHILADELPHIA, PA.

FOR SALE.—Cleveland, Windsor, Garvin Screw Machines, Power Presses, Tapping Machines, Surface Grinder, Annealing Furnaces, Jewelers' and Slitting Rolls. Good condition.
THE ATLAS CO., Lincoln, N. J.

For Sale—ENGINES.

2 Van Dusen Gasoline, 25 h. p. each. 1 10 h. p. Otto Gas Engine. All in good condition and cheap. The J. H. DAY CO.,
1144 Harrison Ave., Cincinnati, O.

FOR SALE.

Second-Hand **Boilers, Engines and Pumps.**

17 Standard Tubular Boilers, ranging from 50 to 150 H. P., single and in batteries.
14 Engines, ranging from 10 to 700 H. P., Corliss Automatic and Slide Valve
8 Steam Pumps, compound and duplex.
Large assortment of Generators, Wood-working Machinery, etc.

WISCONSIN MACHINERY CO.
125-127 W. Water Street, Milwaukee, Wis.

FOR SALE.

Complete Picker Stick Machinery.

40 H. P. Atlas Automatic Center Crank Engine.
50 H. P. Atlas Boiler.
Defiance Bolting Saw.
Sturtevant Blower, engine attached.
No. 3 Williamsport Single Surfacer.
Williamsport 16" Hand Jointer.
Williamsport Horizontal Borer.
Wright's 30" Band Saw Machine.
Fay & Egan 18" Sand Belt Machine.
4 Rip Saws, Dry Kiln Trucks, Shafting, Pulleys and Belts. All as good as new.
Correspondence invited.

UNION HARDWOOD MFG. CO.
UNION, S. C.

John A. Waters & Co.

13½-17½ S. Eighth Street, RICHMOND, VA.

New and Second-Hand Boilers, Engines, Mining Outfits and General Machinery.

3 100 H. P. Return Tubular Boilers, made by the Penn. Boiler Works (new, never having been in brick work) with stack and breeching complete.
2 65 H. P. Return Tubular Boilers, very fine, A No. 1 condition.
1 7x10 Double Cylinder and Double Drum **Hoisting Engine,** in A No. 1 condition, having been used but very little.
1 4x6 Double Cylinder and Single Drum **Hoisting Engine,** as good as new, only used a few weeks. Both of these Hoisting Engines have been thoroughly overhauled in our plant.

Steam Engines and Boilers

FOR SALE.

One Brown Engine, 18x42; one Erie Ball, 13x12; one 15x14 Straight Line, with 1600-light generator connected; one Westinghouse, 25 H. P., with 250-light connected with belt; one Compound McIntosh & Seymour, 250 H. P. connected, with two generators 2000-light each, vertical; one Shaving Press for baling shavings.

J. M. MASON & CO.
81 Haverhill Street, BOSTON, MASS.

FOR SALE.—Band Saw, Scroll Saw, 7" and 14" Floorers, Circular Re-Saw, E. B. Surfacers, Stationary Bed Planers, Planers and Matchers Du Four Picket Header, Shapers, Moulders, Aut Knife Grinder, "Doig" 8 Tube Aut. Nailer, Blind Slat Tenoner, Blind Stile Mortiser and Borer, Knife Balance, Swing Saw, Lathes, Shaving Fans. Cash buyers for new or re-manufactured wood-working machinery, can save money by writing to
C. C HARRIS, 717 N. 2nd St., St. Louis, Mo.

Five-Ton Complete ICE-MAKING PLANT

FOR SALE,

Consisting of Geo. F. Blake Mfg. Co. Steam Driven Ammonia Compression Machine, complete with Condenser, Coils, Brine Tank, Pumps, Ice Cans, Boiler, Stack and all paraphernalia to make a complete plant, at bargain price to quick buyer. Write for general machinery bargains.
CHAS. BEHLEN, 72 Trinity Place, New York.

FOR SALE.—Engine 13"x24," $200; 12"x16", $200. Traction Engines 10 and 12 Horse, $300 each; 10 and 12 Horse Portables on wheels, $175 each. Engine Lathe 20" swing, $125. 18" swing 10' Bed Engine Lathe, $100. Pratt & Whitney Drill Presses, $15 each. Five Boilers 56"x18'. 20 Flues 6" dia., $300 each. Upright Boilers, Engines, Hoisting Engines—all sizes. 20, 30, 35-Horse Portable Boilers with Engines to match. Engines, Boilers, Iron and Wood-Working Machinery of every description at buyers' prices. D. L. CASEY MCH. CO., Springfield, Ohio.

FOR SALE.

One Practically New 15-Tons

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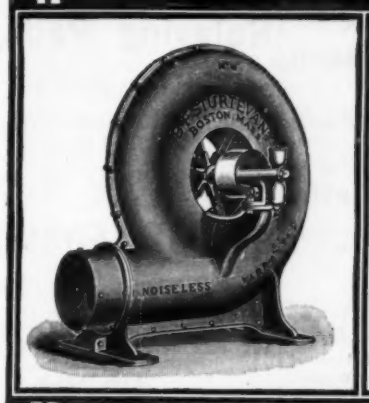

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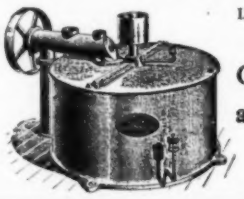

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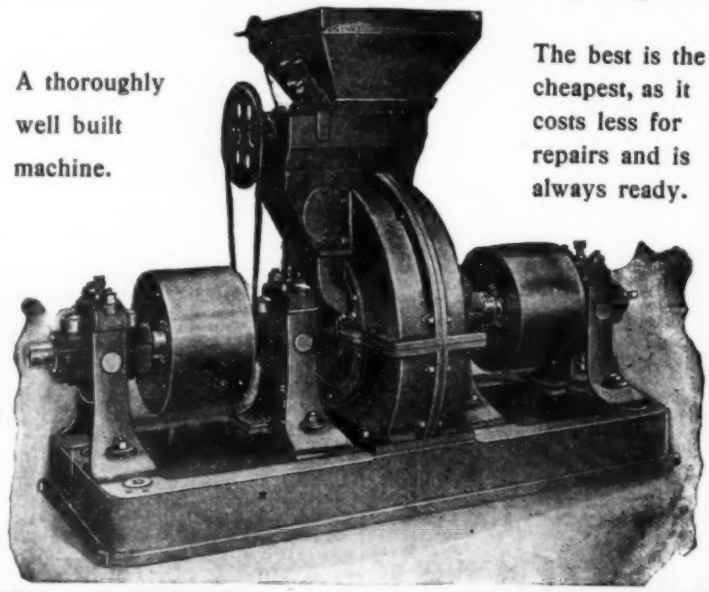

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AN EXPERT OPINION.

L. S. Russell, of Lansing, Mich., of the Bureau of Labor and Industrial Statistics of Michigan, has recently completed a tour of investigation of the Portland Cement industry of his State. He is particularly enthusiastic over the **Omega Portland Cement Company's** plant at **Jonesville, Mich.**, which he terms **"the really model factory where everything is run on a perfect system."** *"Cement," Sept., 1901.*

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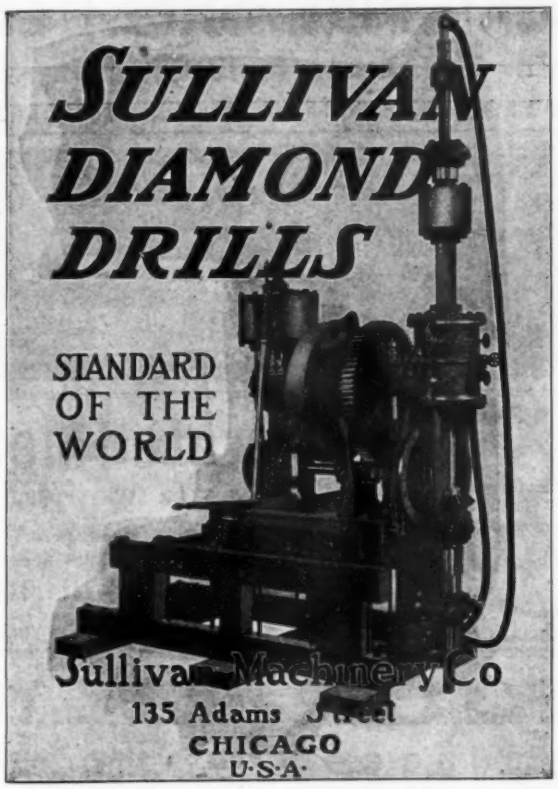

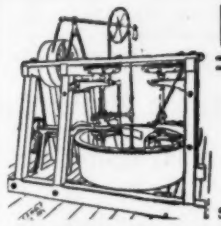

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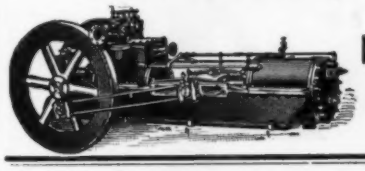

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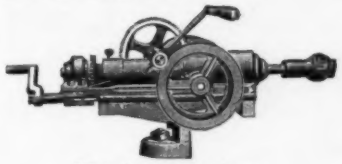

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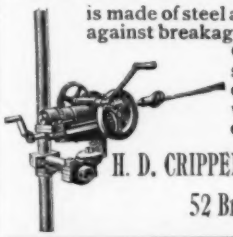

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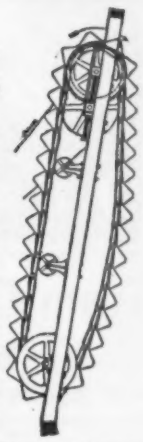

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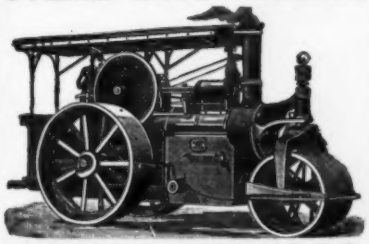

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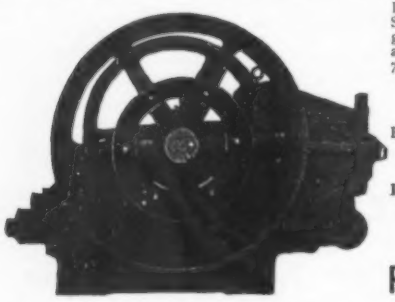

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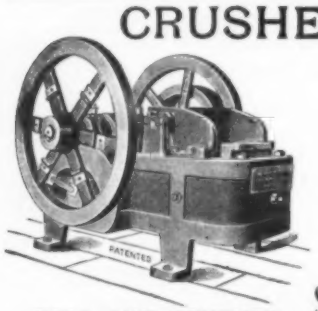

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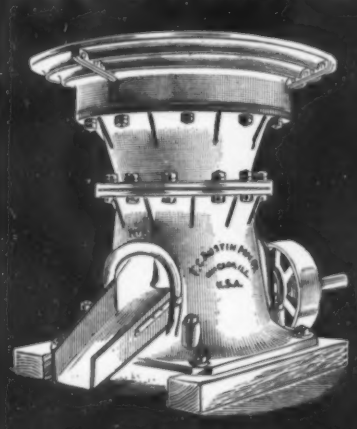

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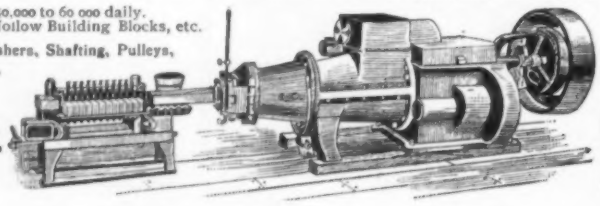

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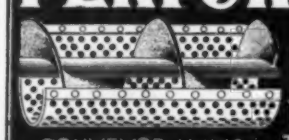

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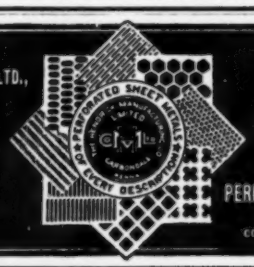

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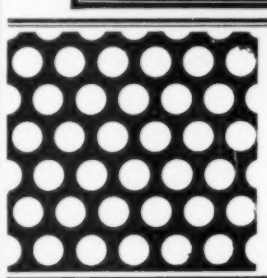

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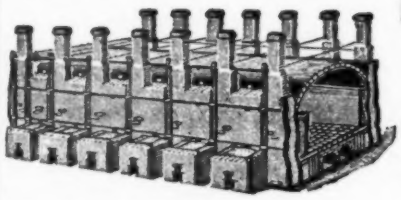

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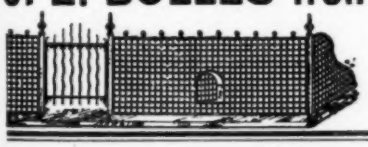

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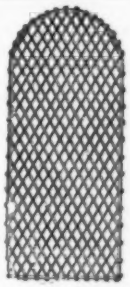

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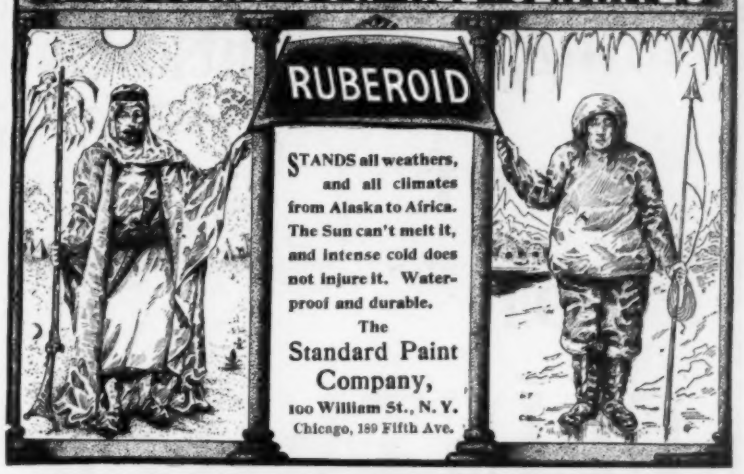

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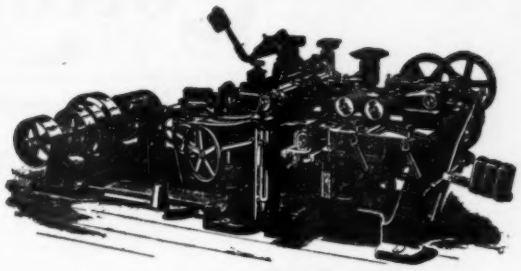

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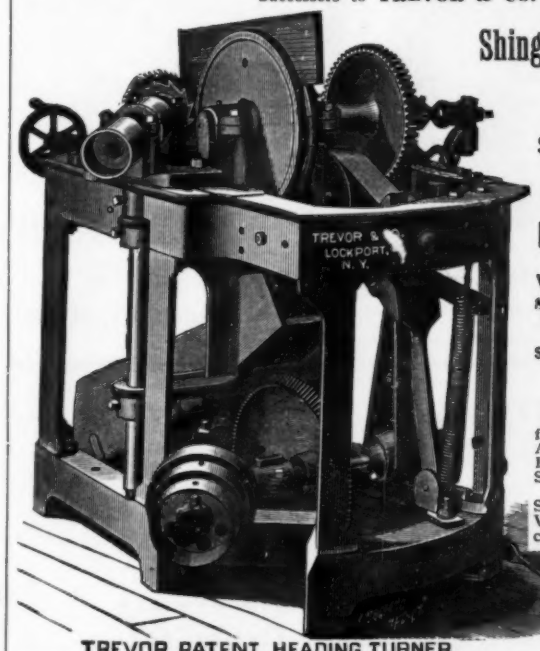

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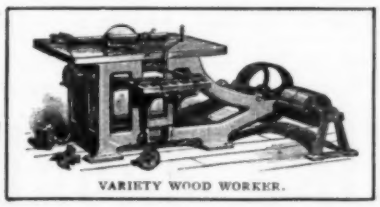

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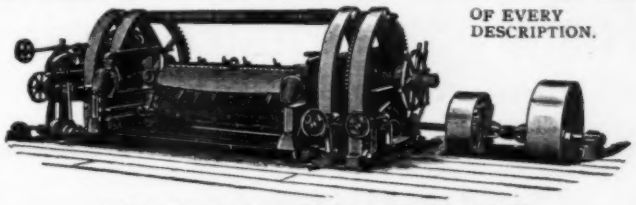

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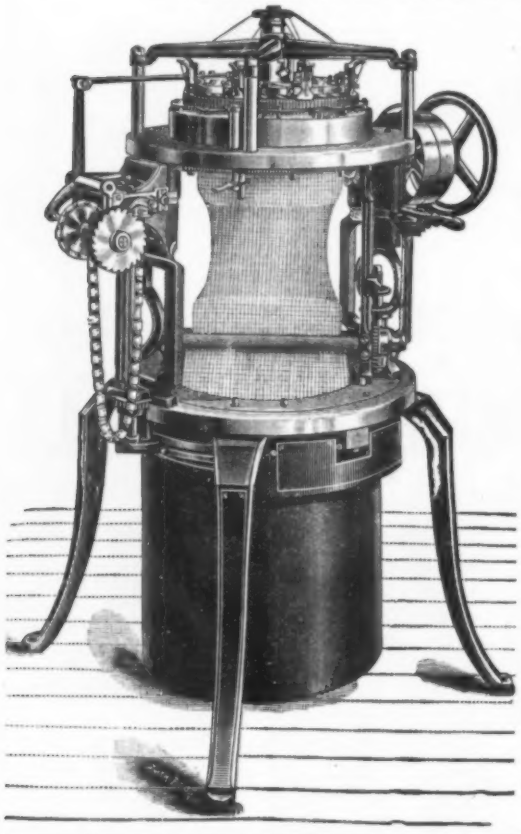

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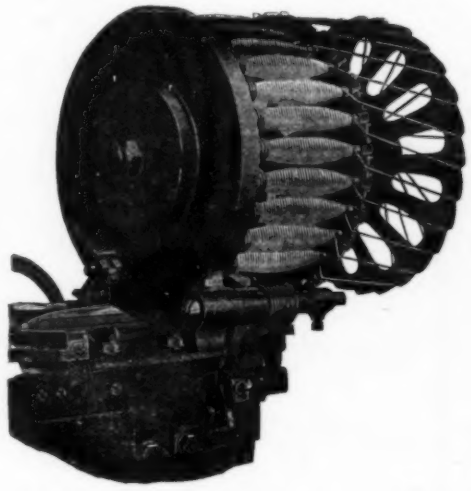

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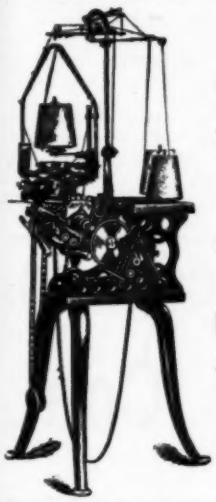

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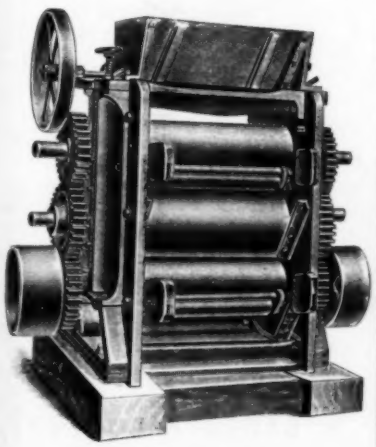

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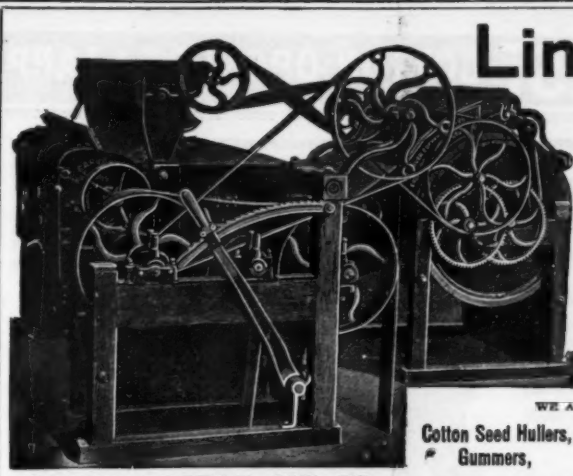

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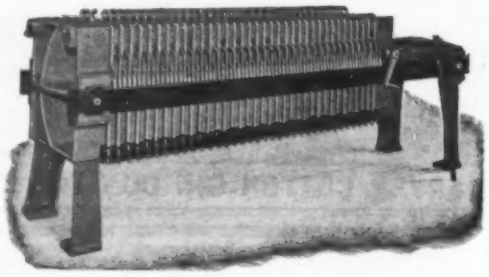

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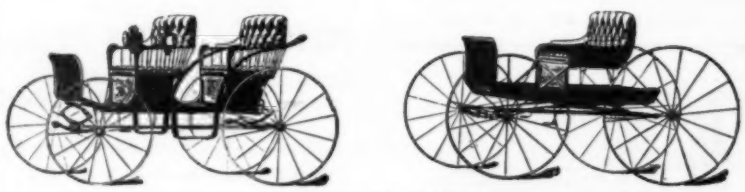

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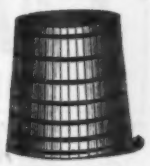

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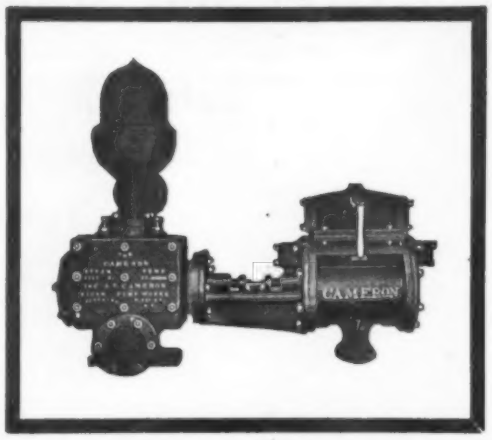

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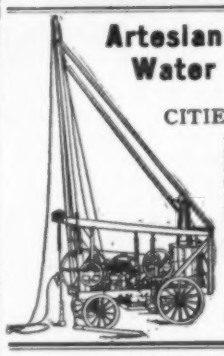

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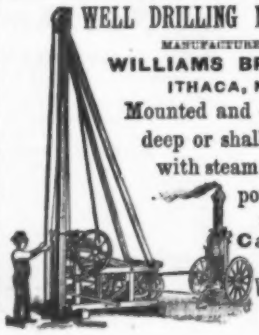

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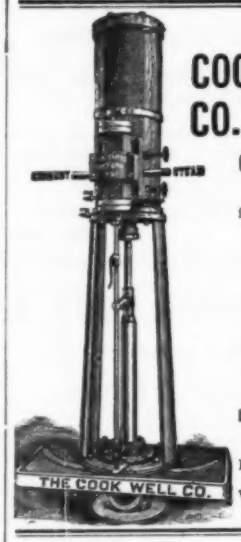

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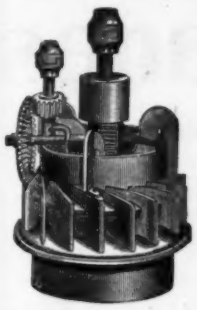

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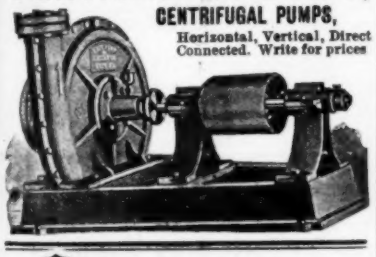

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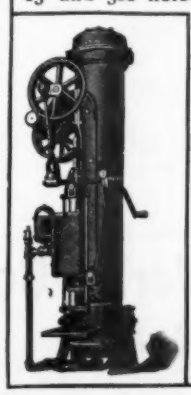

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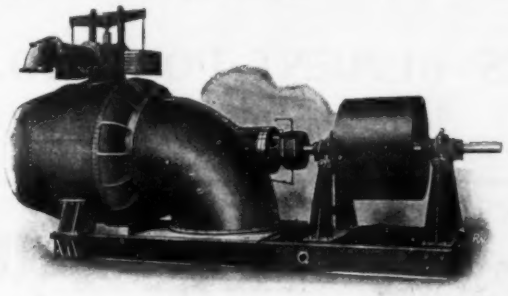

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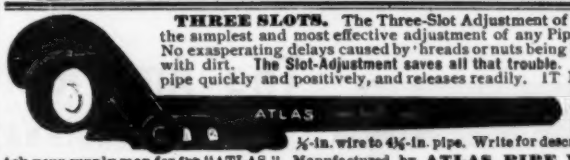

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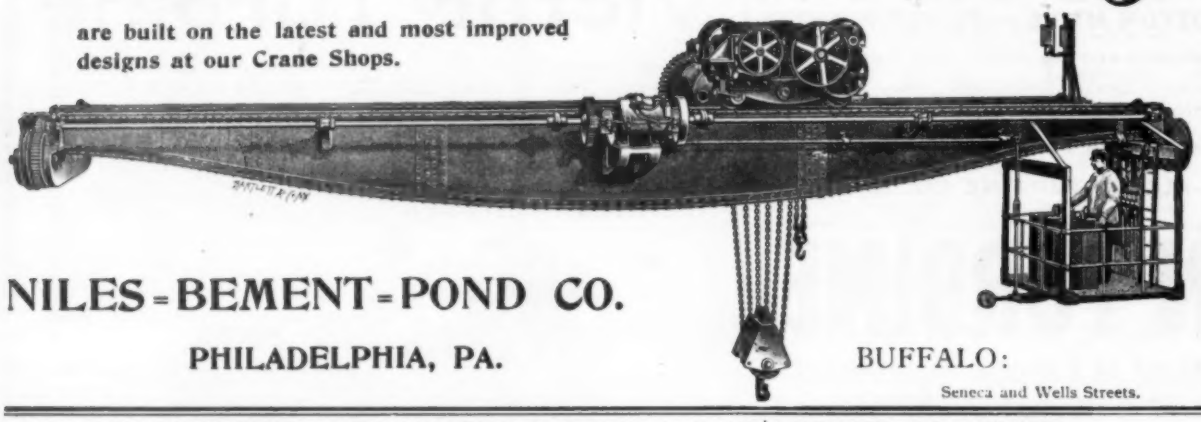

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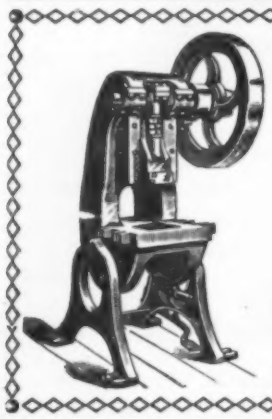

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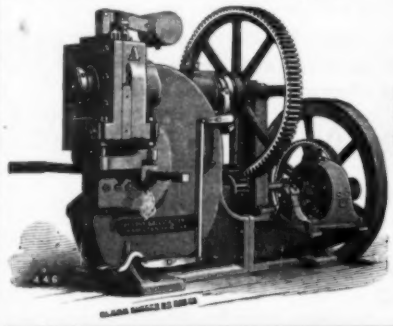

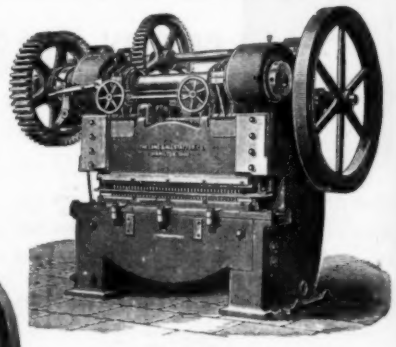

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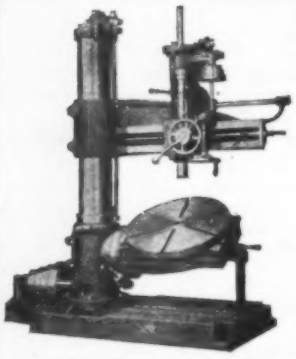

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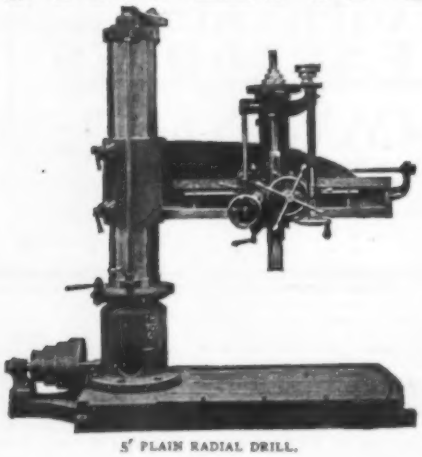

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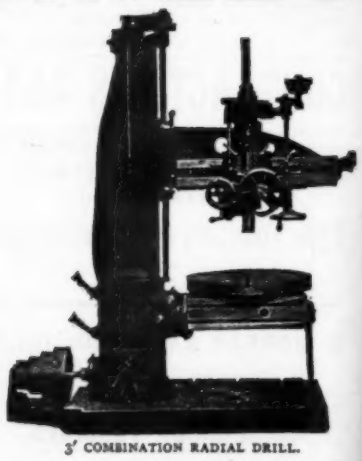

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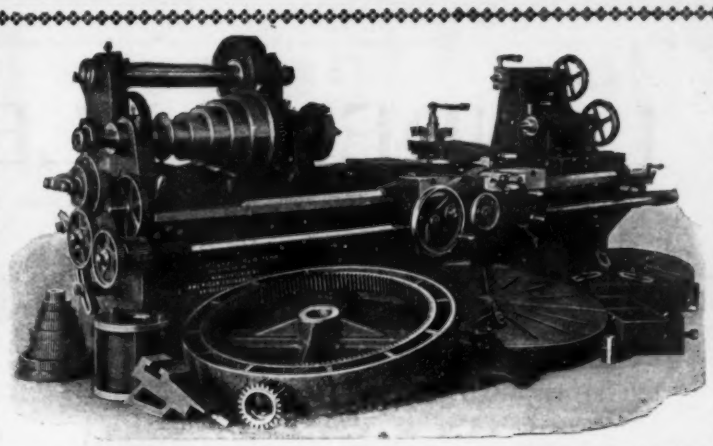

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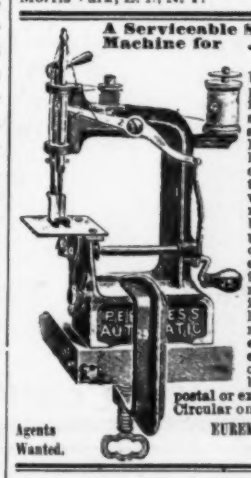

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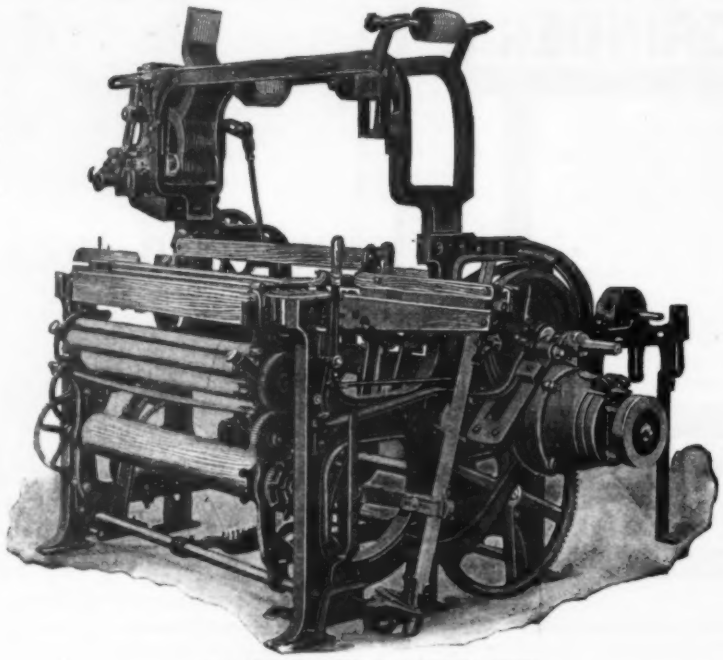

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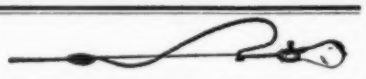

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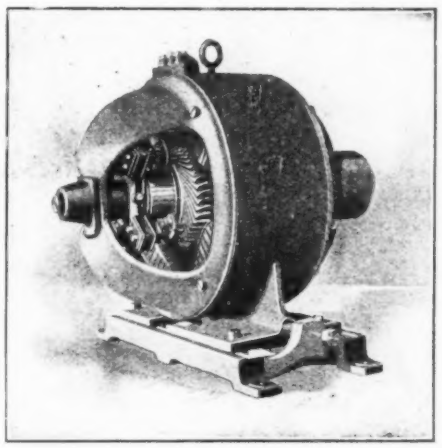

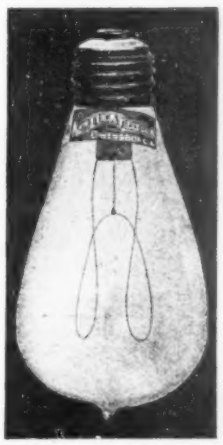

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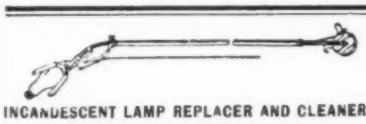

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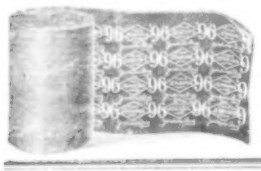

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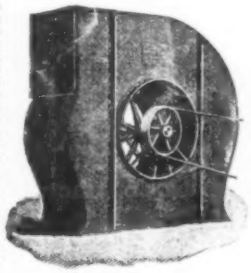

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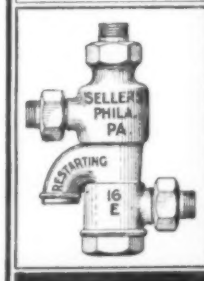

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